# MYSORE PROVINCE,

## NOVEMBER, 1875.

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# PROCEEDINGS

OF

# THE HON'BLE R. A. DALYELL, M. C. S.,

## OFFG. CHIEF COMMISSIONER.

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**PART I—A,** IN EXTENSO.

JUDICIAL.
REV. AG. & COM.
Do. FORESTS.
FINANCIAL.
GENERAL.
EDUCATIONAL.
MILITARY.

**PART II—B,** IN ABSTRACT.

JUDICIAL.
REV. AG. & COM.
Do. FORESTS.
FINANCIAL.
GENERAL.
EDUCATIONAL.—*Nil.*
MILITARY.

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BANGALORE:

MYSORE GOVERNMENT PRESS,

1875.

# PART I.

## JUDICIAL DEPARTMENT.

### A.

PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.

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| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Petition from the inhabitants of Kolar, with reference to the rates of interest charged by the Banks there.*<br>Passing orders on correspondence from the Officiating Judicial Commissioner on the subject. | No 6248—6, dated 1st Nov. 1875. | ... | ... | 1 to 4 |
| 3 to 4 | *Application of Acts XXI of 1850 and XXI of 1866 to this Province.*<br>Calling for the opinion of Commissioners of Divisions, as to the desirability of extending the provisions of the Acts as recommended by the Officiating Judicial Commissioner. | No. 6542—7, dated 10th Nov. 1875. | .. | ... | 5 |

## *Proceedings of the Chief Commissioner of Mysore, Judicial Department, 1st November 1875.*

From the Offg. Judicial Commissioner of Mysore, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 1616—186, dated Bangalore, 20th September 1875.

I have the honor to acknowledge the receipt of your docket No. 4637—57, dated 10th instant, forwarding a *petition from the inhabitants of Kolar, and enquiring what are the existing rules in force in this Province with regard to the rate of interest enforceable by the Courts on bonds, &c., and in reply to state that a similar petition has been presented to me.

*Herewith returned.

2. I herewith send a copy of a judgment recently delivered on the subject on a case submitted from Kolar by the Judicial Assistant Mr. Tambu Chetti, together with a copy of the Punjab Circular therein referred to. Copy of this judgment has also been sent to the Deputy Commissioners of Kolar and Bangalore for communication to their Subordinate Courts.

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In the Court of the Judicial Commissioner of Mysore, Bangalore, Wednesday the 8th day of September 1875. Before H. T. Prinsep, Esq., Offg. Judicial Commissioner.

Referred Case No. 4 of 1875 from the Judicial Assistant of Kolar in Small Cause No. 144 of 1875.

| Plaintiff. | | Defendants. |
|---|---|---|
| Kolar Mutual Benefit Fund "Limited" by their Secretary Gurmurtaiya | *Versus.* | 1. J. Rama Chari.<br>2. C. Ranga Chari.<br>3. I. Sesha Chari. |

This case coming on for disposal this day. Upon perusing the case as stated by the Judicial Assistant, and his notes of evidence in the case, the Court pronounced the following—

OPINION.

The Hundi on which the present suit is brought is to the following effect:—

Jayamangal Ramachari of Kolar having borrowed Rs. 12 from the Kolar Mutual Benefit Fund "Limited" repayable 90 days after sight, you are required to pay the said amount to the said "Fund" on the day after the expiration of the 90 days.

Of this money, however, it is admitted that the 1st defendant received only Rs. 11—10—0, the balance being the interest at 12 per cent on the term for which the Hundi was to run and being thus paid in advance.

The present suit is to recover Rs. 12 the principal, and Rs. 5—4—7 interest, at ½ pie per rupee per diem, or at about 95 per cent per annum from the date on which payment on the Hundi became due. This exorbitant rate of interest is claimed under one of the "Bank Rules."

The Judicial Assistant has decreed payment of the principal with interest at 12 per cent from the date of default to that of the decree, and at 6 per cent on the sum adjudged to the date of payment, and he has submitted the case for my opinion "whether under the circumstances stated by him he was "right in disallowing the interest claimed under the Bank Rules." He considers that "the Courts of "Mysore being Courts of equity and good conscience may exercise a discretion and reduce the rate of "interest if it be found to be unusually exorbitant and that undue advantage was *primâ facie* taken "of the necessities of the borrower."

It does not appear that the so-called Bank Rules were made known to the borrower, defendant, or that his consent was obtained to the conditions specified therein, and therefore he can in no way be held to be bound by them. Further, by the mere fact that interest payable in advance was charged at 12 per cent, I am of opinion that the borrower, defendant, was led to believe that the same rate would be charged on his default, and, on these grounds, I hold that interest at 12 per cent per annum is alone chargeable up to the date of the decree. The Judicial Assistant has, I observe, given interest on the sum "adjudged" (*i. e.* principal and interest at 12 per cent up to the date of decree) at 6 per cent, but I think that it was competent to him to give interest merely on the principal, and to refuse to allow compound interest on such an usurious bargain in which the principal admittedly was never really what

it is stated to have been. Further, I observe that he has not made any allowance for the fact that payment of the principal (Rs. 12) was tendered, but was refused by the Bank because defendant objected to pay the exorbitant interest now disallowed. Such hard dealings seem to indicate that the name of the Bank, "the Mutual Benefit Fund," has been misapplied to the institution.

On the general question as to the manner in which such cases should be treated, I would refer the Judicial Assistant to the Circular of the Chief Court Punjab which is reported at 11 Bengal Law Reports 16, High Court Rules, &c., and which has been adopted by the Calcutta High Court.

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Book Circular No. III—153.

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From E. H. Harrison, Esq., Offg. Registrar, Chief Court Punjab, To all Commissioners and Deputy Commissioners in the Punjab, No. III—153, dated Lahore, the 18th January 1873.

Chief Court of the Punjab.
Present.
C. Boulnois, Esq.,
C. R. Lindsay, Esq. } Judges.
J. S. Campbell, Esq. }

The Chief Court has reason to believe that, in many of the Courts of this Province, especially in those of the agricultural districts, decrees are frequently made by which interest upon debts incurred by peasant proprietors and cultivators is declared payable at exorbitant rates.

2. Cases in which the village money-lender sues his customer involve ordinarily small amounts below Rs. 500, and therefore can scarcely ever come before the Chief Court in consequence of the provisions of Act XXIII of 1861, Section 27, which declares that no Special Appeal shall lie in cases of the nature cognizable in Small Cause Courts.

3. The Chief Court has in fact had no opportunity of explaining in a judicial decision the general principles which govern this question; while in many parts of the country the subordinate courts, and especially the Small Cause Courts, have (as it appears from a recent inspection of records) decreed interest in a manner far too indiscriminate.

4. The Chief Court regards this with great regret, and considers that the law, as it really stands, requires some explanation for the guidance of Judicial Officers, in order that it may not be misunderstood to the detriment of debtors of the class above referred to.

5. The second section of Act XXVIII of 1855 (an Act for the Repeal of the Usury Laws) declares that, "in any suit in which interest is recoverable, the amount shall be adjudged or decreed by the "Court at the rate, if any, agreed upon by the parties," and all due effect must doubtless be given to these words, taken in their plain and ordinary meaning, without any artificial construction being placed upon them for any purpose whatever.

6. The above Legislative Enactment was formerly enforced in many cases that arose in this Province, subject to the qualification declared in paragraph IV, Section 19, of the Principles of Law, commonly called the Punjab Civil Code, which contained the following. "The Courts are not bound by "any restrictions with regard to usury. Debtors and creditors are allowed to arrange the terms and "conditions of interest in whatever manner they may deem most conducive to their mutual benefit; the "Courts will decree whatever rate may have been agreed upon *bonâ-fide* between the parties. If no "special rate shall have been agreed upon, then the Court will fix what may appear an equitable "amount with reference to the custom of the locality, the usage of trade, or the merits of the transac-"tion. It will be remembered that the rates of interest vary for different classes and in different places."

* * * * *

"The debtor need not be compelled by the Court to pay the entire amount of interest, if there be "reason to believe that the bond was executed through fear or ignorance."

7. The compilation from which these words are taken has no force of law in itself, but the general law of contract is, equally with those words, against our Courts considering themselves absolved from the responsibility of regarding the circumstances under which an engagement to pay exorbitant interest has been entered into; and omission by the Courts to give due weight to such circumstances is likely to give rise to serious injustice, and to such evils as are discussed in the Minute on interest by Mr. Melvill, which has been recently circulated among Judicial Officers of the Province.

8. The Indian Contract Act of 1872, in Chapter II, gives the principles on which the law annexes an enforceable obligation to stated engagements requiring free consent; and in Sections 16 and 17, a

general, and at the same time an equitable, rule is indicated where a person who holds a real or apparent authority over another, or in whom confidence is reposed by that other, obtains an advantage which, but for such confidence or authority, he would not have obtained. The law also points out the result where concealment of facts may have taken place, or acts fitted to deceive, or acts or omissions may have occurred in violation of what is regarded as the legal duty of the person obtaining a promise from another to explain facts "likely to affect the willingness" of that other to enter into a contract.

9. Reference may also be made to Section 6 of Act IV of 1872 (the Punjab Laws Act), where it is declared that justice, equity, and good conscience shall be the rule of decision, and it may be safely affirmed that the equity governing this matter is to give their true and full effect to the words of the Indian Contract Act.

10. The repeal of the usury laws by Act XXVIII of 1855, and the abolition of any force of law which the paragraph above quoted from the so-called Punjab Civil Code may have had before the passing of Act IV of 1872, have left untouched the doctrines of equity, both as to the protection of debtors who for any real reason are not fully competent to protect themselves, and as to the power of Courts to relieve against what are called unconscionable bargains with such persons.

11. No doubt any one who contracts with another is entitled to assume, *primâ facie*, that the latter is competent to look after his own interests, but no strict rule defines or can define where comparative incapacity ceases, and where extreme ignorance and helplessness call for the protection of the equitable rules prescribed by law.

12. No doubt also, as a general rule, the debtor is bound to go or send to his creditor and pay him. In many contracts, however, for the loan of grain for a particular sowing (which indeed may reasonably be for the return of grain after the harvest at a very high rate of interest), where the cultivator fails to make payment after the harvest, a distinction may clearly be taken. Neither party originally contemplates a rate of interest intended only for a particular period, running on from the time of the transaction indefinitely, and in such cases the real intention of the parties with due regard to the position of the cultivator must be considered.

13. The existence of undue influence may, in many cases, be inferred (according to the general rules of equity jurisprudence) from the extreme imprudence of the act done, when coupled with other circumstances; and in this country the relations existing between the professional money-lender and indebted peasant are such that this rule should be borne in mind by our Courts.

14. In no case should exorbitant interest be decreed in favor of a money-lender suing a peasant proprietor or cultivator, or any person similarly situated (where the right to recover it is disputed), unless the Court trying the case is satisfied that the stated engagement on which the plaintiff seeks to recover has been entered into by the debtor with knowledge of all the circumstances attending his position, and his liability in regard to his creditor, and of his entire free-will, without inequitable pressure of any kind. The Courts may consider whether or not the contract was a prudent one,—not with a view to setting it aside if imprudent, for that of course is entirely beside the Court's duty, but with a view to determining whether extreme imprudence, from which, along with other circumstances, the existence of undue influence might be inferred, has or has not been manifested. Reference on this point may be made to the custom of the locality, the usage of parties similarly situated, and the rates for loans prevailing, so that the character of the transaction may be tested.

The debtor need not be compelled by the Court to pay the entire amount of interest, whether agreed upon in cash or in grain, if there be reason to believe that the engagement, whether evidenced by bond, or by signing, or marking the money-lender's book, or completed in any other mode, has been entered into through fear or ignorance; and if in any case the amount of interest shall appear to have been agreed upon under circumstances which would render the awarding it contrary to the principles above referred to, the Court will only decree as much interest as may appear just under the circumstances.

15. In conclusion, the Chief Court repeats the injunction conveyed in Book Circular XXIX of 1867, that, in awarding interest subsequent to the date of the decree, the Courts should not allow it to approach in amount that which may be obtainable by persons who have not the security of a decree, and that no inducement should be afforded to decree-holders to allow their decrees to remain unexecuted. Further, the Courts are reminded that, where a large portion of the amount decreed consists of interest, it is not compulsory on them to decree interest upon the amount decreed, inasmuch as the Courts may fitly exercise the discretion allowed them by Act XXIII of 1861, Section 10, and not award any such interest at all.

No. 6248—JUDL. 6, DATED BANGALORE, 1ST NOVEMBER 1875.

ORDER THEREON.—The Officiating Chief Commissioner observes that if the Director of the Banks at Kolar have given proper publicity in the town to the rules of their Banks, there is no ground to justify the Government interposing in favor of parties who borrow money on those terms, and that however confederated the Banks may be in regard to the rate of interest to be charged, these Banks do not, it is presumed, constitute a monopoly of the business.

The Officiating Chief Commissioner concurs in the opinion of the Officiating Judicial Commissioner that the principles enumerated in Circular No. III, 153, dated 18th January 1873, of the Punjab Chief Court, might be suitably adopted in this Province and directs that copies be furnished to all the Courts in this Province for information.

T. CLARKE,
*Offg. Secretary*

*Proceedings of the Chief Commissioner of Mysore, Judicial Department,*
*10th November* 1875.

From the Judicial Commissioner of Mysore, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 994—132, dated Bangalore, 8th August 1874.

I have the honor to request that the Chief Commissioner may be moved to recommend to the Government of India that the Acts noted in the margin may be applied to the Province of Mysore, so as to place Native Christians in this Province on the same footing, with respect to the important provisions of these Acts, as their fellow Christians in other parts of India.

Act XXI of 1850—An Act to declare that Renunciation of Caste or Religion is not to affect the right of inheritance.
Act XXI of 1866—An Act to legalize under certain circumstances the dissolution of marriages of native Converts to Christianity.

No. 6542—Judl. 7, dated Bangalore, 10th November 1875.

Order thereon.—In the foregoing letter the Judicial Commissioner recommends the introduction into the Province of Mysore of the * Legislative Enactments noted in the margin, of which the former overrules the provision of the Hindu Law that renunciation of caste should be attended with forfeiture of all rights of inheritance, and the latter prescribes the manner in which marriages between persons who refuse to live with each other in consequence of the apostacy of one of them can be dissolved by the Civil Courts.

* Act XXI of 1850.
Act XXI of 1866.

2. The Commissioners of Divisions are requested to submit their opinion as to the desirability of extending the provisions of these Acts to this Province.

T. CLARKE,
*Offg. Secretary.*

# PART I.

## DEPT. OF REVENUE, AGRICULTURE AND COMMERCE.

### A.

PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.

| 1 | 2 | 3 | 4 | 5 | 6 |
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| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Applications for the cultivation of assessed waste lands sold for pasturage.*<br>Passing orders on correspondence on the subject. | No. 6245—60, dated 1st Nov. 1875. | ... | ... | 1 to 2 |
| 3 to 4 | *One-fourth share payable to the Kadigidar of Chikmaranhalli.*<br>Directing Nundydroog Commissioner to credit it to the head of "Allowances deducted from sayer and other collections" charging the payments to the same head. | No. 6324—91, dated 2nd Nov. 1875. | ... | ... | 2 |
| 5 to 6 | *Water dispute between the Kangundi Zamindar and the ryots of the Gollahalli village, Kolar District.*<br>Accepting decision arrived at by the Deputy Commissioner, Kolar, and the Assistant Collector of North Arcot, subject to the decision of the Madras Government. | No. 6391—92, dated 3rd Nov. 1875. | ... | ... | 3 |
| 7 | Letter to Madras Government accordingly. | No. 6393—21, dated 3rd Nov. 1875. | ... | ... | 4 |
| 8 to 9 | *Revenue Inists in the Hassan District.*<br>Laying down the proportions in which they are to be paid. | No. 6386—61, dated 3rd Nov. 1875. | ... | ... | 4 |
| 10 to 11 | *Boundary marks.*<br>Approving of proposal made by the Survey and Settlement Commissioner for granting the higher rate of Rs 10 per 1,000 acres generally in all taluks during the interval between the survey and the settlement operations. | No. 6464—188, dated 6th Nov. 1875. | ... | ... | 5 |
| 12 to 13 | *Abolition of the Irrigation cess levied on wet crops.*<br>Directing that Government of India No. 180, R. dated 11th October 1875, on the subject, be recorded. | Dated 12th Nov. 1875. | ... | ... | 6 |
| 14 to 15 | *Sales of grazing lands.*<br>Modifying order of March 1875. | No. 6887—101, dated 26th Nov. 1875. | ... | *Vide* Progs., for March 1875, Part I. R. A. C. No. | 7 |

## *Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 1st November* 1875.

From the Commissioner, Nagar Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, General No. 400—Rev. 86, dated Shimoga, 7th October 1875.

I have the honor to forward herewith, copy of a letter No. 660, dated 1st October 1875, from the Deputy Commissioner, Shimoga District, on the subject of applications for the cultivation of assessed waste lands sold for pasturage, and to request the sanction of the Chief Commissioner to the action taken by the Deputy Commissioner which I venture to think is in accordance with the spirit and meaning of the 2nd part of para 1 of his Proceedings Circular No. 1090—R. 6, dated 13th May 1874, which were intended to guard the rights of individuals who have purchased numbers for grazing purposes.

2. If these purchasers are willing that such lands should be cultivated either by themselves or others before the 1st March, no injustice will be done and additional revenue will be secured to Government.

3. It will be necessary however to take care that the grazing rights of sub-lessees are not interfered with. Although a Patel or other person who has purchased these rights in auction may be willing to place the lands under cultivation, Gaulis and other owners of herds of cattle to whom the grazing has been sublet, may suffer serious inconvenience and injustice.

4. The attention of the Deputy Commissioner will be drawn to this subject.

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From the Offg. Deputy Commissioner, Shimoga District, To the Commissioner, Nagar Division, No. 660, dated Shimoga, 1st October 1875.

With reference to clause II, para 1 of the Chief Commissioner's Proceedings No. 1090—R. 6, dated 13th May 1874, I have the honor to submit the following for your consideration and early orders.

2. The Chief Commissioner having ruled "that applications for assessed waste lands, the grazing "of which has been sold, should not be accepted until the expiry of the term, 1st March, to which the condi- "tion of the sale extends," the Amildar of Channagiri Taluk is reported to have refused applications for lands the assessment on which amounts to about Rs. 1,000 for Vaisak cultivation.

3. In Maidan Taluks like Channagiri the ryots look to the later heavy rains which fill the tanks for the commencement of their Vaisak cultivation and thus tender their applications after the sale of grazing lands is closed at the end of August. Therefore any refusal of applications for such cultivation would tend to heavy loss to Government, and on the other hand the indiscriminate acceptance of such applications would cause endless confusion in the sale of grazing rights.

4. I may for your information quote as an instance an application just received, which illustrates the loss to Government under the present ruling. Before survey numbers assessed at Rs. 346 were applied for, they had been sold for Hulbanni for Rs. 1—14—0. The amount of loss to Government by the refusal of the application amounts to Rs. 344—2—0, the persons applying for the land being those who purchased it for Hulbanni. The only objection which exists in granting these applications is that the pasturage having been sold for the year, Government has no power to let out the same land again for cultivation during the year to other parties. This objection is to be remedied by the applicants being required in every case to obtain the consent of the Hulbanni purchasers.

5. When however applications are received from the Hulbanni purchasers themselves, there is no question about their being admitted, the grazing amount being remitted in the usual manner at the time of jamabandi, for the objection alluded to in the preceding para has still less force in their case.

6. With regard to the lands alluded to in para 2, I may state that 60 per cent of these applications are either from Hulbanni purchasers themselves, or from parties applying with their consent, and taking into consideration the heavy loss that will accrue to Government by refusing these applications apparently without good reason, I have in anticipation of your instructions taken the liberty of ordering the Amildar of Channagiri to accept all applications which are presented by the grazing purchasers themselves, or with their consent, as the Vaisak season is fast approaching. I trust that under the circumstances represented you will be satisfied that I was justified in doing so.

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*Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 2nd November 1875.*

No. 6245—Rev. 60, dated Bangalore, 1st November 1875.

Order thereon.—The Commissioner proposes that if, after the Hulbanni sales have taken place, any wet lands then rented for grazing purposes for the year are applied for by parties desirous of taking them up on kandayam, the consent of the grazing renters should be obtained and the applications then granted. The Officiating Chief Commissioner sanctions the proposed course being adopted, but to obviate the frequent occurrence of such cases, the Amildars should be instructed to postpone the sale of the grazing valuable wet lands, till after the season for taking up such lands for Vaisak cultivation has expired.

T. CLARKE,
*Offg. Secretary.*

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From the Commissioner, Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 81, R., dated Bangalore, 27th August 1875.

Adverting to your No. 4065—R. 117 of 21st October 1873, I have the honor to forward copy of a docket No. 480 of the 19th instant from the Deputy Commissioner, Bangalore, with a bill No. 143 for Rs. 103—11—0, being the one-fourth share payable to the Kodigidar of Chikmaranhalli for the year 1874—75, and to request the favor of instructions as to the heading to which the charge referred to should be debited.

2. I would suggest that the charge be met for the current year from general savings and that a separate heading be opened in future Budgets.

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From the Offg. Deputy Commissioner of the Bangalore District, To the Commissioner, Nundydroog Division, Genl. No. 480, dated Bangalore, 19th August 1875.

In submitting the accompanying bill No. 143 for sanction, has the honor to request instruction as to the Budget item to which the amount thereof, *viz.* Rs. 103—11—0, should be charged, as the provision made in the estimates submitted from this Office for the payment to the Kodigidar of Chikmaranhalli has been omitted in the sanctioned Budget for 1875—76.

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No. 6324—Rev. 91, dated Bangalore, 2nd November 1875.

Order thereon.—In reply, the Commissioner of the Nundydroog Division is informed that the Kodigidar's ¼th share should be deducted from future collections and credited to the head of "Allowances deducted from Sayer and other collections," charging the payments to the same head.

2. In the revenue returns, the gross demand of kandayam should be entered as well as the gross collections, and the Kodigidar's share should be shewn in the column for remissions, the Chief Commissioner's authority, No. 4065—117 of the 21st October 1873, being cited therein.

T. CLARKE,
*Offg. Secretary.*

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*Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 3rd November* 1875.

From the Commissioner, Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, R. 120, dated 21st October 1875.

In reply to your No. 7685—Rev. 176 of the 25th January last, I have the honor to forward for the information of the Chief Commissioner, copy of a letter from the Dy. Commissioner of Kolar and of its enclosure on the subject of the joint settlement made by the Dy. Commissioner and the Assistant Collector of North Arcot in connection with the water dispute between the Kangundi Zamindar and the ryots of the Gollahalli village in the Betmangala Taluk of the Kolar District.

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From the Dy. Commissioner, Kolar District, To the Commissioner, Nundydroog Division, No. 1240—471, dated Kolar, 12th October 1875.

I have the honor to acknowledge the receipt of your official memo No. 810 of the 15th February 1875, forwarding copy of the Secretary's letter No. 7685—R. 176 of the 25th January 1875, directing the settlement by arbitration of the dispute regarding the use, by the ryots of Gollahalli village in the Betmangala Taluk, of the surplus water of Vobalappanakere of Peddur Konerikoppa village of the Kangundi Zamindari in the North Arcot District.

2. In reply, I beg to report that the Collector of the North Arcot District having deputed his Assistant Collector Mr. A. F. Cox, I met that gentleman at the disputed spot on the 6th instant, and after hearing the Kangundi Zamindaries' Vakil and the principal ryots of both the villages and examining the records produced on both sides, we have unanimously arrived at the conclusion that the ryots of the Gollahalli village on the Mysore side have by their admitted enjoyment for an uninterrupted period of more than 30 years established their right to the use of the waste-water of the Vobalappanakere in the British Territory, and that the claim of the Zamindar of Kangundi for the grant of 3—4 kandis of land of the Mysore village as compensation on account of this water is inadmissible, as no reliable record has been produced to prove that such a grant was ever made by the Mysore Government.

3. Our joint decision is herewith submitted in original.

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We the undersigned having been appointed to arbitrate regarding the water dispute between the villages of Konerikoppam and of the Kangundi Zamindari and Gollahalli of the Betmangala Taluk of Kolar District of Mysore have agreed as follows :—

(1) That the villagers of Gollahalli have a right to the use of water for the disputed lands from the Pedda Cheruvu without granting land in compensation to the Zamindar.

(2) That this water shall be drawn from the Vanka as has been customary for many years past.

A. F. COX,
*Assistant Collector, North Arcot.*

B. KRISHNAIENGAR,
*Dy. Commissioner, Kolar District.*

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No. 6391—Rev. 92, dated Bangalore, 3rd November 1875.

Order thereon.—The settlement arrived at unanimously by the Deputy Commissioner of the Kolar District and the Assistant Collector of North Arcot appears to be decisive of the question referred to them, and may be accepted, subject to the decision of the Government of Madras.

2. A copy of the Proceedings will be submitted to the Government of Madras, with the following letter.

T. CLARKE,
*Offg. Secretary.*

*Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 3rd November 1875.*

No. 6393.
21.

MYSORE CHIEF COMMISSIONER'S OFFICE
BANGALORE, *3rd November* 1875

FROM

THE OFFG. SECRETARY TO THE CHIEF COMMISSIONER
OF MYSORE.

To

THE SECRETARY TO GOVERNMENT, FORT ST. GEORGE,
REVENUE DEPARTMENT.

SIR,

With reference to your letter No. 84 of the 14th January 1875, I am directed to forward for submission to His Excellency the Governor in Council the accompanying copy of the Proceedings of the Offg. Chief Commissioner of this date, approving of the joint settlement made by the Deputy Commissioner of Kolar and the Assistant Collector of North Arcot in the matter of the water dispute between the Kangundi Zamindari and the Gollahalli village in the Betmangala Taluk of the Kolar District.

I have the honor to be
Sir,
Your most obedient Servant,

T. CLARKE,
*Offg. Secretary*

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Letter No. 505—72 of the 21st September 1875, from the Commissioner, Ashtagram Division.

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No. 6386—REV. 61, DATED BANGALORE, 3RD NOVEMBER 1875.

ORDER THEREON.—The Officiating Chief Commissioner approves of the proposal submitted by the Commissioner, and directs that the Revenue khists in the Hassan District shall be payable during the current year and hereafter in the proportions noted below:—

| | Annas. |
|---|---|
| December .. .. .. . .. | 2 |
| January .. .. .. .. .. | 6 |
| February .. .. .. .. .. | 6 |
| March .. .. .. .. .. | 2 |

T. CLARKE,
*Offg. Secretary.*

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## *Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 6th November* 1875.

Memorandum by the Survey and Settlement Commissioner, No. 1539, dated Poona, 18th October 1875.

The appended *letter proposing to extend to all measured taluks the grant of Rs. 10 for 1,000 acres of unoccupied waste land for repair of boundary, which was conceded for the Anantapur, Ságar and Shimoga Taluks by Chief Commissioner's Order No. 3635—257, is forwarded with recommendation for sanction.

*No. 803 of 13th September 1875.

2. The grant should commence from a year to be notified by the Superintendent of Survey, who will of course know the time when necessity for it will arise.

3. It should for the present last in the form of a grant at the higher rate of Rs. 10 per 1,000 acres, only up to the year following the settlement inclusive. The bandhs up to that time, having been newly erected, and the earth being illconsolidated, require most attention and repair. As stated in para 5 of my letter No. 1461 of 4th instant, I do not feel at present certain of the necessity for making this grant of the higher rate of Rs. 10 permanently applicable and consider it preferable to wait for a little further experience of the working of this grant before proposing to make it permanent.

4. Even now I would not propose that the grant of Rs. 10 per 1,000 acres of unoccupied waste be extended to every village in a taluk without discrimination. In some of the Malnad taluks there are very large areas of forest comprised in a very few survey numbers with very few bandhs on their boundaries; for such villages the lower rate of Rs. 5 would suffice, and the Superintendent of Survey should have power to select the villages for which he considered that the large areas and few bandhs per survey number in unoccupied waste would render a lower rate than Rs. 10 per 1,000 acres sufficient.

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From the Superintendent, Revenue Survey and Assessment, Mysore, To the Survey and Settlement Commissioner of Mysore, No. 803, dated Bangalore, 13th September 1875.

I have the honor to suggest that the orders of the Chief Commissioner, No. 3635—Rev. 257 of the 15th August 1874, which conveyed sanction to the outlay of Rs. 10 for every 1,000 acres of unoccupied land in the taluks of Ságar, Anantapur and Shimoga (all three at that time unsettled) should be made applicable to *all* unsettled taluks.

2. My reasons for urging the above course are that I have lately had a report from the Bánavar Taluk describing how the bandhs were deteriorating from neglect, no funds being available. So long as the order above quoted is not general in its application, much time will be lost whenever any difficulty occurs, and before special sanction can be obtained the most favorable time for repairing the boundary marks will have passed and they will be exposed to another monsoon. The fact moreover of no outlay being recognized furnishes the taluk officials with a very plausible excuse for taking little or no action in the matter.

3. General sanction once given the subsidiary arrangements are simple enough. The work of each year will be furnished villagevar to the taluk authorities as regards unoccupied land by this Department during the rains following. The bandhs will of course stand the first monsoon but not a second one, but before that time the taluk authorities will have funds available and lists of unoccupied land to guide them in their expenditure.

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No. 6464—Rev. 188, dated Bangalore, 6th November 1875.

Order thereon.—The Officiating Chief Commissioner approves of the proposal made by the Survey and Settlement Commissioner for granting the higher rate of rupees 10 per 1,000 acres for repair of boundary marks generally in all taluks during the interval between the survey and the settlement operations.

The Superintendent, Revenue Survey, will in each case decide as to the period from which the grant will be made, whether according to the higher or lower standard, and will communicate this information to the Commissioners of the Divisions concerned.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 12th November* 1875.

From the Offg. Secretary to the Chief Commissioner of Mysore, To the Under-Secretary to the Government of India, Department of Revenue, Agriculture and Commerce, No. 2906—43, dated Bangalore, 6th July 1875.

From Secretary to Government, Department of Revenue, Agriculture and Commerce, No. 210 R., dated 27th August 1874.

In acknowledging the receipt of your docket No. 101, R., dated 23rd April 1875, giving cover to a despatch from the Secretary of State for India requesting to be informed of the details of the measures adopted in this Province to give effect to the arrangement sanctioned in the letter marginally quoted, for the abolition of the irrigation cess hitherto levied as a separate item of taxation on wet crop lands and the institution of a District Irrigation Fund to be formed by a fixed contribution from the revenue derived from irrigated lands throughout the Province, I am directed to submit the accompanying copy of the Chief Commissioner's Notification No. 341, dated 11th February 1875, discontinuing the cess, directing the formation of the District Irrigation Fund and prescribing rules for its disposal.

2. I am directed to forward also for reference a copy of the Mysore Revised Survey Guarantee referred to in the above quoted Notification, and of the rules issued for the guidance of District Fund Committees in the administration of the District Irrigation Funds.

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From the Secretary to the Government of India, Foreign Department, To the Offg. Chief Commissioner of Mysore, Revenue, No. 180, R., dated Simla, the 11th October 1875.

With reference to the correspondence ending with your Offg. Secretary's letter No. 4159—70, dated 21st August 1875, I am directed to state that the Governor General in Council approves of the measures adopted by you for giving effect to the arrangements sanctioned in this Office letter No. 210, R. dated 27th August 1874, in connection with the abolition of the Irrigation cess levied on wet crop lands in Mysore.

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BANGALORE, 12TH NOVEMBER 1875.

ORDER THEREON.—Ordered that the foregoing letter be recorded.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, Department of Revenue, Agriculture and Commerce, 26th November* 1875.

From the Commissioner, Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 75, R., dated Bangalore, 12th August 1875.

Adverting to the Chief Commissioner's Proceedings No. 9243—Rev. 207 of the 18th March 1875, passing orders on the sales of grazing lands in the Bangalore and Túmkúr Districts, I have the honor to forward copy of letter No. 408 of the 3rd instant, from the Deputy Commissioner of the Bangalore District, suggesting that Amildars be authorized, as hitherto, to conduct the sales instead of Assistants for reasons assigned.

2. I quite concur with Mr. Ricketts that there would be difficulties in the way of carrying out the whole of the sales through the Assistants *only*, and in anticipation of sanction I have proposed to the Deputy Commissioner that he should depute his Assistants to test a hobli here and there this year, and carry out the sales through the Amildars, and that he should not only watch but also report the result of the Assistant's work when completed.

From the Offg. Deputy Commissioner, Bangalore District. To the Commissioner of the Nundydroog Division, No. 408, dated Camp Anekal, 3rd August 1875.

Para 2 of the Order of the Chief Commissioner No. 9243, dated 18th March 1875, runs as follows :—

Major Pearse's proposal that an Assistant should be deputed to hold the sales next year is approved and should be carried out in the Nundydroog Division.

2. Major Pearse proposes that the Assistant "should after due notice, hold the (grazing) sales "at three or four convenient localities in the taluk and *himself* sell all the numbers." I submit that the sales to be convenient to the villagers and well attended, in other words to be effective, should be held in at least a dozen localities in each taluk. In a large taluk like Magadi, where there are 11 hoblis, the sales ought to be held I think in at least 22 localities, *i. e.* 2 to each hobli. Each Assistant would in this District have to take up 4½ taluks and probably be engaged in the work, (excluding Sundays and the time occupied in travelling from hobli to hobli) unless he scrambled over it, for a period comprising from 1 to 1½ months or more.

3. Besides the above drawback I do not see that any particular advantages will be gained by an Assistant thus personally conducting the sales. He will be wanting in the necessary local knowledge and any hints that he may acquire as to combination, &c., will be derived from the Amildar. However much the Assistant may exert himself I doubt if the results of his work will be different from or even as good as those of an Amildar conducting his own sales.

4. It is to be noted that at the time of selling the grazing lands the responsible taluk officials are out in their taluks on Pahani works and have the time to sell leisurely, and to adjourn sales if necessary, in addition to being in a position to judge if fair bids are being made.

5. I would therefore beg to advocate that the Amildar be authorized as hitherto to conduct the grazing sales in his taluk, being cautioned if necessary to be particularly exact in the manner he does so.

6. In support of my proposal I would beg to point out that assuming Amildars should not be entrusted with the duty of conducting grazing sales, it would remain a question whether they are competent to carry out Batayi produce sales, which realize a far larger amount, and is a most responsible and important task.

7. The favor of an early answer is requested.

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No. 6887—Rev. 101, dated Bangalore, 26th November 1875.

Order thereon.—The Offg. Chief Commissioner concurs in the view that it would be preferable that the sales of grazing lands (Hulbanni) should be conducted as heretofore by the Amildars of Taluks, whose responsibility cannot be wholly transferred to the Assistant Commissioners in charge of Sub-Divisions. The orders contained in the Chief Commissioner's Proceedings No. 9243—207 of 18th March 1875 are modified to this extent.

T. CLARKE,
*Offg. Secretary.*

# PART I.

## DEPT. OF REVENUE, AGRICULTURE AND COMMERCE.

## FORESTS.

### A.

PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Index Nos. of the Proceedings | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Watchers employed for the fuel plantations at Chitaldroog.*<br>Sanctioning the retention of the two men for one year from 7th February 1876. | No. 7024—78, dated 30th Nov. 1875. | ... | ... | 1 |

READ—

Letter No. 653, dated 4th November 1875, from the Deputy Commissioner, Chitaldroog District, to the Commissioner, Nagar Division.

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No. 7024—REV.-F. 78, DATED BANGALORE, 30TH NOVEMBER 1875.

ORDER.—Under the circumstances represented in the above, the Offg. Chief Commissioner sanctions the retention for one year from 7th February 1876 of the services of the two Watchers at Rs. 5 and 4, respectively, for the Fuel Plantation at Chitaldroog, the cost being charged to "26. Miscellaneous, Item No. 18, District Fuel Tracts—Expenses of Enclosure."

T. CLARKE,
*Offg. Secretary.*

# PART I.

## FINANCIAL DEPARTMENT.

### A.

**PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.**

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Contribution of ryots holding land under the Kadabahalli Tank in the Nagamangala Taluk.* Approving of its reduction from Rs. 1,128 to Rs. 420. | No. 6241—54, dated 1st Nov. 1875. | ... | ... | 1 to 3 |
| 3 to 4 | *Agricultural allotments in the Nagar Division.* Passing orders on a reference from Nagar Commissioner on the subject. | No. 6290—89, dated 1st Nov. 1875. | ... | *Vide* Progs. for September 1875, Part I. "R. A. C." Index Nos. | 3 |
| 5 to 6 | *Application from Hospital Assistant Govindrajulu Naidu to be granted rates of batta allowed to Medical Subordinates of the Madras Government.* Informing the Deputy Surgeon General of Hospitals that the Officiating Chief Commissioner is not prepared to recommend a change which could not be shewn to be equally necessary in respect of all other employés of Government. | No. 6384—356, dated 3rd Nov. 1875. | .. | ... | 4 |
| 7 to 8 | *Chairam at Mandagadde, Kavaledurga Taluk.* Directing that Rs. 859—2—3 be advanced from the Muzrayi surplus fund of the Shimoga District, for its construction. | No. 6460—91, dated 5th Nov. 1875. | ... | ... | 4 |
| 9 to 10 | *District Fund Budgets.* Passing orders on a further communication from the Chief Engineer. | No. 6469—364, dated 6th Nov. 1875. | ... | *Vide* Progs. for Oct. 1875, Part I. "Financial" Index Nos. 9 to 10. | 5 to 6 |
| 11 to 12 | *Disbursement of Rs. 36,000 to the illegitimate grandsons of the late Maharaja on account of their allowance in lieu of the jahagirs for 1875—76.* Communicating correspondence on the subject to the Officers concerned. | No. 138, F., dated 25th Nov. 1875. | ... | ... | 7 |
| 13 to 14 | *Municipal Budgets of the town and taluks of the Tumkur District for 1875—76.* Passing orders on a further reference from Nundydroog Commissioner on the subject. | No. 6919—83, dated 27th Nov. 1875. | ... | *Vide* Progs. for June 1875, Part I. "General" Nos. 21 to 22. | 8 to 9 |

From the Commissioner, Ashtagram Division, To the Secretary to the Chief Commissioner, Public Works Department, No. 508—D. P. W. 137, dated Mysore, 21st September 1875.

In 1874—75 an estimate amounting to Rs. 1,685 was prepared by the taluk authorities for the improvement of the Kadabahalli tank in the Nagamangala Taluk, and the ryots holding land under this tank agreed to pay one fourth of the estimate as their contribution. Subsequently the estimate was revised and raised to about Rs. 4,512 by the Executive Engineer, and the ryots when called upon executed an agreement to pay one fourth of the estimated cost according to the promise originally given by them, but they were not made aware of the amount of the revised estimate and believed it to be that of the original estimate, which was Rs. 1,685.

The work having been sanctioned, the Deputy Commissioner at the request of the Executive Engineer called upon the ryots to pay one fourth of the amount of the revised estimate, but they have referred to their original deposition, and plead that they are liable to pay only one fourth of the original estimate according to this agreement, a translation of which is enclosed, and in which no mention is made of the amount of the revised estimate or the sum now demanded. The Deputy Commissioner reports that the ryots are in indigent circumstances and are not able to pay this large sum, which cannot be realized even by the sale of their movable and immovable property, and recommends that only one fourth of the original estimate be recovered from them. I concur in this, and request you will obtain for me the sanction of the Chief Commissioner; but the general question is of some importance, and to prevent misunderstanding and ensure a uniform system in future, it is necessary that in all cases of contribution either in money or labor the amount of the esimate should be distinctly stated in the agreement executed by the ryots, together with the amount of contribution which each individual agrees to pay in money or labor and the penalty in case of failure on his part to fulfil the terms of the agreement. The "Mutchalika" at present taken from the ryots is generally very defective, and two draft forms-one for contribution in labor and the other for money—are therefore submitted for the consideration and orders of the Chief Commissioner.

*Herewith sent in original to be returned.

Copy of letter from the Deputy Commissioner, Hassan, No. 834, dated 24th ultimo, together with copies of its enclosures, are enclosed.

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From the Offg. Deputy Commissioner, Hassan District, To the Commissioner, Ashtagram Division, No. 834, dated Hassan, 24th August 1875.

I have the honor to bring the following case to your notice, and to request your orders on the same.

2. On the 24th May 1874 the ryots of Kadabahalli, Nagamangala Taluk, executed a Mutchalika agreeing to pay ¼ of the cost of repairing their tank.

3. On the 17th June and 12th August 1875, the Executive Engineer informed this Office that the repairs of this tank had been sanctioned, and that according to the Mutchalika executed by the ryots, he requested that Rs. 1,128 might be collected from them as their ¼ share of the estimate.

4. Accordingly orders were issued by me to the Amildar to collect this amount; but he has reported that the ryots decline to pay this large amount, as they were under the impression when they signed the Mutchalika that the cost of the repair of their tank would only be Rs. 1,685, as estimated for originally by the taluk authorities.

5. In addition to this, the ryots state that they are quite unable to pay such a large sum; and the Amildar has sent in a statement, a translation of which is enclosed, from which it will be seen that the executors of the Mutchalika are all poor men and that it will be impossible even to collect Rs. 1,128 from them by the sale of all their property.

6. As the ryots signed the Mutchalika, there is no question that Government would be entitled to sell their property and recover as much as possible; but at the same time I do not think such a step advisable, as the ryots when they signed the Mutchalika had, I feel certain, no idea that their share would amount to the large sum it has, but were under the impression that the estimate which was originally framed in the taluk amounting to Rs. 1,685 would be the amount, a fourth of which they are now prepared to pay.

7. I may here state that the Mutchalika in question was taken before I took charge of this District; and that since I have taken charge I have requested the Executive Engineer to inform me of the probable amount of the estimates for the different tanks it is proposed to repair.

8. After receipt of this information, intimation will then be given to the different cultivators under the tanks of what the cost will be, and they will be required to state what share of the same they are willing to bear. With this information before it, the Government can at once see whether the repair of a tank will be remunerative or not, and it will prevent ryots afterwards stating that they did not know what their share would amount to.

9. The Mutchalika is herewith forwarded, and I request the same may be returned when no longer required.

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Statement shewing the Property of the Ryots who have signed the agreement to contribute towards the repairs of Kadabahalli Tank in the Nagmangala Taluk.

| No | Names of Ryots. | House. | | | Cattle. | | | | Land. | | | | | | | | | | | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Dry land. | | | | | | Wet land. | | | | | | Garden. | | | | |
| | | | | | | | | | Extent. | | | Revenue. | | | Extent. | | | Revenue. | | | Extent. | | | Revenue. | | |
| | | Description. | Extent in Ankana. | Probable value. | Bullocks. | Cows or Buffaloes. | Goats. | Sheep. | No. | K. | K. | M. | Rs. | A. | P. | No. | K. | K. | M. | Rs. | A. | P. | No. | K. | K. | M. | Rs. | A. | P. | |
| 1 | Lakkegauda Ranga .. ... | Mud roof. | 16 | 32 | 2 | 3 | ... | 3 | 5 | ... | 8 | 11¾ | 10 | 6 | 4 | 1 | ... | 5 | 15 | 2 | 2 | 7 | 1 | ... | ... | 4 | 0 | 4 | 9 | |
| 2 | Dodmane Mariya ... ... | Do | 3 | 6 | ... | ... | ... | ... | 2 | ... | ... | 14¾ | 1 | 3 | 2 | 1 | ... | 2 | 1 | 0 | 12 | 0 | ... | ... | ... | .. | .. | .. | |
| 3 | Kurbar Linga ... ... | Thatched | 4 | 4 | 2 | 4 | 1 | 15 | 1 | ... | 1 | 4 | 1 | 9 | 7 | 1 | ... | 8 | 4 | 3 | 0 | 0 | ... | ... | ... | ... | ... | ... | ... | |
| 4 | Kapinigauda Hucha ... ... | Mud roof. | 13 | 26 | 2 | 2 | ... | 10 | 3 | ... | 4 | 7 | 4 | 9 | 8 | 1 | ... | 3 | ... | 1 | 1 | 6 | ... | ... | ... | ... | ... | ... | ... | |
| 5 | Tirmalna Honne ... ... | Do | 7 | 14 | 2 | 1 | 1 | ... | 2 | ... | 1 | 7½ | 1 | 9 | 0 | 2 | 1 | 3 | 1 | 8 | 4 | 0 | ... | ... | ... | ... | ... | ... | ... | |
| 6 | Bairan Rangamma ... ... | Do | 15 | 30 | 6 | 2 | ... | 30 | 1 | ... | 2 | 8 | 2 | 14 | 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | Keeps a common cart. |
| 7 | Garutimman Dodda ... .. | Do | 6 | 12 | 2 | 3 | 1 | ... | 5 | ... | 8 | 12¾ | 7 | 6 | 5 | 1 | ... | 6 | 7½ | 2 | 5 | 10 | ... | ... | ... | ... | ... | ... | ... | |
| 8 | Kulenmayi Ranga ... .. | Do | 12 | 24 | 4 | 4 | 1 | 30 | 10 | ... | 15 | 15 | 12 | 8 | 3 | 1 | ... | 7 | 7 | 2 | 11 | 4 | ... | ... | ... | .. | ... | ... | ... | |
| 9 | Tirmalna Lakka ... ... | Do | 14 | 28 | 2 | 5 | ... | 30 | 2 | ... | 8 | 1¾ | 8 | 9 | 1 | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | ... | |
| 10 | Lakkan Ranganna ... ... | Do | 9 | 18 | 2 | 1 | ... | ... | 11 | 1 | 18 | 4 | 18 | 4 | 4 | 1 | 1 | 9 | 8 | 10 | 9 | 4 | .. | ... | ... | ... | ... | ... | ... | |
| 11 | Tirmalna Tirumala .. ... | Do | 11 | 22 | 2 | 3 | ... | 20 | 5 | ... | 4 | 10½ | 4 | 15 | 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 12 | Hosmane Huchegauda ... ... | Do | 23 | 45 | 2 | 2 | ... | 10 | 8 | ... | 12 | 11½ | 13 | 6 | 11 | 1 | ... | 19 | 8 | 7 | 0 | 1 | ... | ... | ... | ... | ... | ... | ... | |
| 13 | Nanjan Huchegauda ... ... | Do | 8 | 16 | 2 | 6 | ... | ... | 8 | ... | 14 | 14¾ | 17 | 1 | 11 | 1 | ... | 4 | 4 | 1 | 8 | 10 | ... | ... | ... | ... | ... | ... | ... | |
| 14 | Pujari Rangaiya ... ... | Do | 27 | 50 | 8 | 4 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 4 | ... | 2 | 14 | 7 | ... | ... | ... | ... | . | ... | Rangaswami's Jodi land. |
| 15 | Do Kempa ... ... | Do | 12 | 24 | 2 | 1 | ... | ... | 1 | .. | 1 | 4 | 1 | 7 | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | Udslamma's Do |
| 16 | Hedjan Hutcha ... ... | Do | 4 | 8 | 2 | 4 | 1 | ... | 2 | ... | 1 | 4 | 1 | 7 | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | Jodi for serving in the temple. |
| 17 | Kulvadi Mallaranga ... ... | Do | 4 | 8 | 2 | 2 | ... | 10 | 3 | ... | 4 | 2 | 3 | 9 | 6 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 18 | Lakshmidevi Maligari ... ... | Do | 8 | 16 | 2 | ... | ... | ... | 2 | ... | 2 | 10 | 2 | 5 | 4 | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 19 | Dodmane Chikkaranga ... | Do | 11 | 22 | ... | 2 | 1 | ... | 5 | ... | 6 | 2½ | 6 | 4 | 7 | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | Rs. 10 being Isvara's Jodi is in this Patta. |
| 20 | Patel Santegauda ... ... | Do | 20 | 40 | 2 | 6 | ... | ... | 4 | ... | 10 | ... | 10 | 0 | 0 | 1 | ... | 13 | 11 | 5 | 3 | 5 | ... | ... | ... | ... | ... | ... | ... | |
| 21 | Do Kavetigauda ... ... | Tiled | 16 | 32 | 4 | 4 | ... | 15 | 9 | ... | 13 | 2¼ | 13 | 15 | 11 | 2 | ... | 9 | 9 | 3 | 7 | 8 | ... | ... | ... | ... | ... | ... | ... | |
| 22 | Rangegaudan Ranga ... ... | Mud roof. | 13 | 26 | 6 | 6 | 3 | 70 | 10 | 2 | 7 | 15½ | 29 | 6 | 11 | 2 | ... | 18 | 3¾ | 6 | 15 | 8 | ... | ... | ... | ... | ... | ... | ... | Keeps a cart. |
| 23 | Sattigere Dodranga ... ... | Do | 8 | 16 | 4 | 3 | ... | 40 | 8 | ... | 11 | 6¼ | 13 | 9 | 6 | 1 | ... | 11 | 9 | 4 | 4 | 5 | 1 | ... | ... | 4 | 0 | 7 | 5 | Do |
| 24 | Kenchanahalli Kapani ... ... | Tiled. | 22 | 44 | 4 | 8 | 1 | 10 | 5 | ... | 14 | 7¾ | 15 | 4 | 9 | 4 | 1 | 4 | 8 | 8 | 13 | 5 | .. | ... | ... | ... | ... | ... | ... | Keeps a Waddar cart. |

*Proceedings of the Chief Commissioner of Mysore, Financial Department,*
*1st November* 1875.

No. 6241—FINL. 54, DATED BANGALORE, 1ST NOVEMBER 1875.

ORDER THEREON.—Under the circumstances brought to notice, the Officiating Chief Commissioner approves of the ryots' contribution in this case being reduced from Rs. 1,128 to Rs. 420, the latter being the sum which they originally agreed to pay.

It would be desirable that the work should be carried out within the limit of the original estimate of Rs. 1,685; but if this should be impracticable, the Officiating Chief Commissioner considers that the difference between the quota of contribution above fixed and the estimate amount must be met in full from the Irrigation Department Budget.

T. CLARKE,
*Offg. Secretary.*

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From the Commissioner of the Nagar Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, Genl. No. 403—Finl. No. 78, dated Shimoga, 8th October 1875.

In reply to your letter No. 5364—307, dated 30th ultimo, I have the honor to state that the agricultural allotments of the Deputy Commissioners of Shimoga and Chitaldroog are:—

| | | | | | |
|---|---|---|---|---|---|
| Shimoga | .. | .. | .. | .. | 5,000 |
| Chitaldroog | .. | .. | .. | .. | 3,000 |

2. Out of the Commissioner's allotment of 2,000 Rs., the following sums have been appropriated.

| | | | | | | |
|---|---|---|---|---|---|---|
| Shimoga | .. | .. | .. | .. | 632 | 0 0 |
| Kadur | .. | .. | .. | .. | 146 | 0 0 |
| Chitaldroog | .. | .. | .. | .. | 0 | 0 0 |

3. The Commissioner's allotment may be distributed in the proportion of Rs. 1,500 to Shimoga and Rs. 500 to Chitaldroog.

4. The proportion would therefore be 6,500 Rs. to be charged to the Irrigation Fund of the Shimoga District and 3,500 Rs. to that of the Chitaldroog District.

5. I request that a grant of 500 Rs. may be placed at my disposal for works in the Kadur District requiring my sanction. Rs. 146 have already been appropriated.

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No. 6290, FINL. 89, DATED BANGALORE, 1ST NOVEMBER 1875.

ORDER THEREON.—The Commissioner's proposal that of the sum of Rs. 10,000 referred to in the Chief Commissioner's Proceedings No. 4600—298 of the 10th September last, Rs. 6,500 should be charged to the Irrigation Cess Fund of the Shimoga District, and Rs. 3,500 to that of the Chitaldroog District, is sanctioned.

2. The grant of Rs. 500, applied for on account of works in the Kadur District, cannot be sanctioned, as there are no funds from the Irrigation cess at credit in that District. The sum of Rs. 146 reported to have been already expended should therefore be adjusted from the allotment of Rs. 3,000 made from provincial funds.

T. CLARKE,
*Offg. Secretary.*

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*Proceedings of the Chief Commissioner of Mysore, Financial Department, 5th November* 1875.

READ—

Docket No. 731, dated 28th September 1875, from the Deputy Surgeon General, Mysore Divisio and Ceded Districts, forwarding for consideration an application from 3rd Class Hospital Assistar Govindarajalu Naidu to be granted the rates of batta allowed to Medical Subordinates of the Madra Government.

No. 6384—FINL. 356, DATED BANGALORE, 3RD NOVEMBER 1875.

ORDER THEREON.—The rates of travelling allowance for Hospital Assistants in Mysore, *viz.*, 3-10ths of pay for ordinary marches, and 2 annas per mile for rapid travelling, are those drawn by all Ministerial Officers in the Civil Department of the Administration in accordance with the authority contained in Government of India Financial Orders, No. 522, dated 25th May 1871, which empowered Local Governments to sanction for Hospital Assistants any rates of travelling allowance not exceeding those authorized for Ministerial Officers of corresponding rank or pay in the Civil Department

The Officiating Chief Commissioner is not prepared to recommend a change in thos rates which cannot be shewn to be equally necessary in respect of all other employés of the Government.

T. CLARKE,
*Offg. Secretary.*

From the Commissioner, Nagar Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 263—Finl. 42, dated Camp Chikmagalur, 5th August 1875.

I have tha honor to submit for the Chief Commissioner's sanction the accompanying estimate and plan for the restoration of the Brahmin chatram at Mandagadde in the Kavaledurga Taluk at a cost of Rs. 1,262—0—0.

*Vide* letter No. 417, date l 28th July 1875, from Dy. Commissioner, Shimoga.

2. There is a musafarkhana for all classes at the same place, but as Mandagadde is on the high road to Tirthahalli, Udapi and other places to which pilgrims resort, it is desirable to restore the chatram for their accommodation.

3. The Deputy Commissioner reports that there is at present a sum of Rs. 402—15—9 at the credit of the institution, and proposes the suspension of the feeding allowances for two years to meet the remainder, *viz.*, Rs. 859—2—3.

4. The Deputy Commissioner asks for an advance of the said sum of Rs. 859—2—3 from the Local Fund General on condition of repaying it by yearly instalments of Rs. 400. I do not see any objection to the arrangement proposed, and I therefore submit the matter for the consideration and orders of the Chief Commissioner.

No. 6460—FINL. 91, DATED BANGALORE, 5TH NOVEMBER 1875.

ORDER THEREON.—The Officiating Chief Commissioner directs that the sum of Rs. 859—2—3 be advanced from the Muzarayi Surplus Fund of the Shimoga District for the construction of the chatram at Mandagadde in the Kavaledurga Taluk, on the understanding that the amount be repaid to that Fund in two annual instalments, together with interest at 6 per cent.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, Financial Department, 6th November* 1875.

From the Chief Engineer of Mysore, Public Works Department, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 3677, dated Bangalore, 21st October 1875.

Adverting to Chief Commissioner's Proceedings No. 5569—Finl. 301 of the 8th instant, (despatched 18th) I have the honor to state that whereas from the present orders only Rs. 14,000 have been sanctioned from Local Funds General, a further sum as marginally shewn of Rs. 3,609 is required to meet expenditure during the current official year, otherwise work to this extent must be deferred till next year.

| | | |
|---|---|---|
| Total Bangalore District Fund Budget grant | ... | Rs. 39,009 |
| Do do receipts for the year 1875–76, including Rs. 14,000 from Local Funds General and Rs. 8,000 from Public Works Budget | Rs. 47,897 | |
| Actual amount spent in 1874–75 | „ *12,497 | „ 35,400 |
| *Vide* Appendix A, pages 26 and 27 of the District Fund Budget, Mysore Province. | | 3,609 |

2. I would also draw attention to inaccuracies in the Proceedings *noted in †red ink which it would appear desirable to correct.

* Herewith returned.

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Memorandum by the Chief Engineer, dated 25th June 1875.

In accordance with the personal instructions of the Chief Commissioner, the *Expenditure* side of the District Fund Budgets is now being printed, and I herewith submit for final instructions, which will have to be conveyed to the Deputy Accountant General through the Secretary in the General Department, the *Receipt* side, ditto.

The ways and means for the several Districts saving those of Bangalore, Kadur and Mysore being easy, it is only necessary here to note how the deficits in these may be met.

*I. Bangalore.*—Here there was an over expenditure of Rs. 8,083 during last year, and works being proposed and passed for current year to Rs. 13,526 in excess of ordinary receipts, the whole deficit amounts to Rs. 25,609.

The Deputy Accountant General having shewn that Bangalore, while contributing largely to Local Funds General, only got a trifling grant last year, it is proposed, for the present, to adjust the deficit by a provisional grant from Local Funds General for the whole amount to be relieved however by Rs. 10,000 by a grant-in-aid from the Public Works Budget, should the Government of India pass eventually the Rs. 40,000 proposed for such purposes.

*II. Kadur.*—Here the deficit amounts to Rs. 31,344 and it is proposed to make up this in a similar manner by a provisional assignment of Rs. 20,000 from Local Funds General with Rs. 11,344 added from the accumulations of Irrigation Cess ; the former sum to be eventually relieved by Rs. 10,000 from the Public Works Budget in the same manner as above explained.

This method of disposing of the Irrigation Cess is particularly applicable to the Kadur District and has been provided for in the lately promulgated rules.

*III. Mysore.*—Here though there is no deficit a relief to the extent of Rs. 6,680 is proposed to be afforded from Local Funds General on account of the repairs of the (1) Manantodi road, (2) Sivasamudram road, the maintenance of both of which Sir Richard Meade considered should be provided for otherwise than out of the District Funds.

The whole sum may eventually be provided for from the Department Public Works Budget, under the same conditions as before mentioned.

It is eventually also proposed to make the following additional assignments from the 40,000 in the Public Works Budget if finally passed, *viz* :—

| | Rs. |
|---|---|
| To Kolar .. .. .. .. | 3,000 |
| „ Tumkúr .. .. .. .. | 4,000 |
| „ Hassan .. .. .. .. | 5,500 |

All however now required is that due authority be conveyed to the Deputy Accountant General to place the grants named above for Bangalore, Kadur and Mysore duly at disposal.

† Antique figures.

## *Proceedings of the Chief Commissioner of Mysore, Financial Department, 6th November 1875.*

Grants-in-aid to District Funds.

| | Nundydroog. | | | Ashtagram. | | Nagar. | | | Totals. | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Provisional already made in District Fund Budget.* | Bangalore. | Kolar. | Tumkur. | Mysore. | Hassan. | Shimoga. | Kadur. | Chitaldroog. | | | |
| Local Funds General ... | 26,000 | ... | ... | ... | ... | ... | 20,000 | | 46,000 | | |
| Irrigation Cess.. ... | ... | ... | ... | ... | ... | ... | 11,344 | ... | 11,344 | 57,344 | |
| *Subsequent Proposals.* | | | | | | | | | | | |
| Local Funds General ... | 7,085 | ... | ... | ... | ... | ... | 11,344 | | 18,427 | | |
| Department Public Works. | 10,000 | 3,000 | 4,000 | 7,500 | 5,500 | ... | 10,000 | ... | 40,000 | | |
| Irrigation Cess ... | ... | ... | ... | ... | ... | ... | 10,000 | ... | 10,000 | 68,427 | |
| *Last Proposal.* | | | | | | | | | | | |
| Local Funds General ... | 20,000 | ... | ... | 2,000 | ... | ... | 15,000 | ... | 37,000 | | |
| Department Public Works. | 8,000 | 2,000 | 2,000 | 6,680 | 3,000 | ... | 16,344 | ... | *38,000 | 75,000 | *Held in reserve Rs. 2,000. |

2nd October 1875. R. H. SANKEY.

No. 5569—Finl. 301, dated Bangalore, 8th October 1875.

ORDER THEREON.—The Chief Engineer's proposals provide for the following special grants from the Public Works Budget, and from Local Funds General respectively.

| | From Public Works Funds. | From Local Funds General. | Total. |
|---|---|---|---|
| To—Bangalore District Fund | 8,000 | 14,000 | 22,000 |
| ,, Kolar ... | 2,000 | ... | ... |
| ,, Tumkur ... | 2,000 | ... | ... |
| ,, Mysore ... | 6,680 | 2,000 | 8,680 |
| ,, Hassan ... | 3,000 | ... | ... |
| ,, Kadur ... | 16,344 | 15,000 | 31,344 |

2. The Officiating Chief Commissioner observes that the estimated deficit in the Bangalore District Fund Budget amounts to *Rs. 21,609 and not 25,609 as shewn in the Chief Engineer's memorandum of 25th June last. Assuming that the requirements of the District will be diminished to an equivalent extent, the Officiating Chief Commissioner sanctions a grant of Rs. 14,000 from Local Funds General to the Bangalore District Fund, and with this modification approves of the assignment particularized in para 1 above.

*Rs. 8,083 Overspent in 1874—75
,, 13,526 Estimate for works sanctioned in current year in excess of assets.
21,609

No. 6469—FINL. 364, DATED BANGALORE, 6TH NOVEMBER 1875.

ORDER THEREON.—It would appear that the excess expenditure in the past year in the Bangalore District was Rs. 12,497 and not Rs. 8,083 as stated in the Chief Engineer's Memorandum dated 25th June 1875. A further sum of Rs. 3,609 will therefore under the circumstances be granted from Local Funds General to meet the deficit.

2. The sum of Rs. 20,000 shewn in para 1 of the Chief Commissioner's Proceedings dated 8th October 1875, No. 5569—Fl. 301, as grant from Local Funds General, to the Bangalore District, should have been Rs. 14,000 and the total allotment to that District Rs. 22,000. It is requested that the necessary alterations may be made in the printed copies of these Proceedings.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, Financial Department, 25th November* 1875.

**From the Officiating Secretary to the Chief Commissioner of Mysore, To the Secretary to the Government of India, Foreign Department, No. 100, dated Bangalore, 5th October 1875.**

With advertence to the marginally noted correspondence, I am desired by the Officiating Chief Commissioner to state that in consequence of the delay that has arisen, and which circumstances have rendered unavoidable in making over to the illegitimate grandsons of the late Maharaja the *jahagir* which has been assigned to them for their maintenance in the Chamrajnagar Taluk of the Mysore District, it will become necessary to disburse the usual allowances amounting to Rs. 36,000 for the current official year, from the Palace Budget, and to solicit the sanction of His Excellency the Viceroy and Governor General in Council to this arrangement.

From the Offg. Secretary to the Chief Commissioner of Mysore, To the Secretary to the Government of India, Foreign Dept., No. 159, dated 12th December 1873.
From the Under-Secretary to the Government of India, Foreign Dept., To the Chief Commissioner of Mysore, No. 134 P, dated 14th January 1874.

2. The jahagir villages have been measured and classed by the Revenue Survey Department, but the settlement has not yet been effected, but it is anticipated that this will be done in the course of the next working season.

3. I am directed to explain with regard to the allowances made to the grandsons for the year 1874-75, that these were disbursed as an advance under the authority of the Chief Commissioner from the savings of the Budget grants, subject to adjustment by a transfer from the revenues of the Mysore District, if necessary. To obviate confusion, however, the Officiating Chief Commissioner considers it preferable that the allowances should continue to be debited to the Palace Budget until the lands have been finally made over to the Jahagirdars.

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From the Assistant Secretary to the Government of India, Foreign Department, To the Officiating Chief Commissioner of Mysore, No. 2990, P, dated Fort William, the 11th November 1875.

In reply to your Officiating Secretary's letter No. 100, dated 5th October 1875, I am directed to state that the Honorable the President in Council sanctions the disbursement from the Palace Budget allotment, of Rs. 36,000 to the illegitimate grandsons of the late Maharaja of Mysore on account of their allowances for the current official year.

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**No. 138, F, dated Bangalore, 25th November 1875.**

**Ordered, that the foregoing letters, sanctioning the disbursement from the Palace Budget of Rs. 36,000 to the illegitimate grandsons of the late Maharaja, on account of their allowance in lieu of the jahagirs for 1875—76, be communicated to the undermentioned Officers for information and guidance.**

**T. CLARKE,**
***Offg. Secretary.***

## *Proceedings of the Chief Commissioner of Mysore, Financial Department, 27th November* 1875.

**From the Commissioner, Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, P. W. No. 6, dated Bangalore, 5th October 1875.**

With reference to Chief Commissioner's Proceedings No. 2216—Genl. 93 of the 14th June last, I have the honor to forward copy of a letter from the Deputy Commissioner of Túmkúr No. 408 of 27th August, and to state with reference to para 2 of your letter that the actual * balances on the 1st April 1875 to the credit of the three municipalities therein alluded to, being in excess of the sums specified in the letter under reply, the conservancy establishment may be sanctioned as originally proposed by the Deputy Commissioner.

| | Rs. |
|---|---|
| *1 Maddagiri | 743 |
| 2 Koratagere | 350 |
| 3 Huliyurdurga | 493 |

2. With regard to the Turuvekere Municipality, the Deputy Commissioner's statement that a sum of Rs. 2,695 is available for expenditure is correct, and I therefore request that the Budget submitted may be sanctioned.

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**From the Deputy Commissioner, Túmkúr District, To the Commissioner of the Nundydroog Division, No. 408, dated Camp Kibbanahalli, 27th August 1875.**

With reference to your No. 188 of 24th June 1875, I have the honor to reply as follows to the several points in the Chief Commissioner's Proceedings, Order No. 2216—General 93 of 14th June, and 3319—184 of 19th July 1875.

2. The strength of the existing conservancy establishments practically failed to maintain the towns in a state of cleanliness and hence their increase was considered a matter of the first importance.

3. Para 2 suggests the marginally noted conservancy establishments be reduced as noted opposite thereto; to comply with this as far as possible, 1 scavenger of each establishment is proposed to be reduced, effecting a saving in the 2 former of Rs. 3 per mensem each, but of only 2—8—0 per mensem in the last named Municipality.

Maddagiri 5 Rs. per mensem.
Koratagere Do do
Huliyurdurga 1½ Do do

4. With reference to para 3, I shall endeavour to carry out during this year's jamabandi a correct classification for municipal purposes of houses in the taluks named, and, if approved, in those of Koratagere, Huliyurdurga and Turuvekere also. The incidence of the mohatarfa is so unequal that it affords no data on which to fix a just and equitable municipal tax. In the first instance a personal inspection of lists, the preparation of which shall be started by the Assistants or myself, will be necessary to ensure uniformity, and this we could do during jamabandi. The immediate change from the octroi to a municipal tax seems therefore scarcely at once feasible.

5. I have just visited Tiptur to give effect to the Chief Commissioner's suggestions regarding the improvement of its water-supply and for which purpose I deferred this reply. The town contains 5 wells of drinking water, 4 of which are said to be very good, the 5th not quite so sweet, but none of these are said to have ever failed or dried up since they were excavated, some many years ago. The water in the tank is pronounced by all classes to be delicious and very wholesome, and the tank, as far as I could learn from enquiries on the spot, was never known to be dry except in the year Angirasa, 1872—73; and then holes of 4 to 6 feet being dug in the bed, good water was freely procurable, the drying up of the tank did not affect the drinking wells already alluded to. To meet however the contingency of the drying up of the tank in future, I propose to define the edge of the tank at the entrance to the town (on the side of the Bangalore-Shimoga road, at its junction with the Turuvekere District road) by rebuilding regularly the revetment which is much out of order and in many places wanting and having steps for the convenience of those drawing water and at the back of this revetment and at the side of the high road excavating a large * kalyani with steps at three sides, this seems to please the inhabitants who say that that will meet all their wants in the way of a water-supply. The estimate, &c., has been ordered to be prepared and will be submitted as early as possible, but to carry out the excavation, the use of pumps will be required to pump out the water received by percolation from the tank and consequently the work will not be able to be carried out till the hot season, but with the use of pumps if available in the Public Works Stores, it should be carried out to completion then.

Stone well or Reservoir.

6. With regard to the Turuvekere Municipal Funds, the figures of the Deputy Accountant General, viz., Rs. 2,096—9—2, are correct as far as they go, but he has omitted to add the balance in hand of Amildar on 31st March, Rs. 598—7—6, which together make Rs. 2,695—0—8 the assumed opening cash balance.

7. The explanation of the falling off in the Cattle Trespass Funds is that in former budgets the fines of the whole taluk went to the Municipal Fund, now those of all outlying pounds to the District Funds.

8. With these explanations, I have the honor to request sanction to the remaining Municipal Budget Estimates for 1875—76.

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No. 6919—FINL. 83, DATED BANGALORE, 27TH NOVEMBER 1875.

ORDER THEREON.—Under the circumstances stated in the above, the Offg. Chief Commissioner sanctions the retention of the provision originally made under the head of "Conservancy" for the current year in the towns of Maddagiri, Koratagere and Huliyurdurga. It should however be understood that the previous years' cash balances from which the Commissioner suggests that the increased cost of the conservancy establishment can be met, should be spent on works of extraordinary or reproductive character and not on ordinary repairs.

2. The proposal of the Deputy Commissioner to introduce house-tax into the towns of Koratagere, Huliyurdurga and Turuvekere is approved; but there is no apparent reason for deferring the measure till the ensuing year.

3. The estimate and plan under preparation for the construction of a bandy-stand at Tiptur are awaited.

4. The proposal made in para 5 of the Deputy Commissioner's letter to improve the village tank and construct a fresh reservoir is approved.

5. The explanation called for regarding the discrepancy noticed in para 2 of this Office Proceedings No. 3319—184 of the 19th July last is accepted and the supplemental Budget for the Turuvekere Municipality is sanctioned. The proceedings of the Amildar in omitting to shew the balance of Rs. 598 in the cash balance account were however very irregular.

T. CLARKE,
*Offg. Secretary.*

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# PART I.

## GENERAL DEPARTMENT.

### A.

**PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.**

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Report of the Army Sanitary Commissioner with the Government of India for* 1873.<br>Directing that copies be communicated to the Judicial Commissioner and the Deputy Surgeon General, I. M. D., as well as all Executive Officers of the Administration. | No. 6340—144, dated 2nd Nov. 1875. | ... | ... | 1 to 16 |
| 3 to 4 | *Punjab Sanitary Report for* 1873.<br>Directing that copies of correspondence received from the Government of India on the subject be communicated to all Officers of the Administration for attention. | No. 6326—143, dated 2nd Nov. 1875. | ... | ... | 17 to 26 |
| 5 to 6 | *Transfer of Garudachari, Treasurer, Bangalore District Treasury.*<br>Passing orders on a reference from the Nundydroog Commissioner on the subject. | No. 6389—220, dated 3rd Nov. 1875. | ... | *Vide* Progs. for June 1875, Part I. "General" Nos. 33 to 34. | 26 to 27 |
| 7 to 8 | *Proposal from Ashtagram Commissioner that the Town Police of Seringapatam be incorporated with the Taluk Police.*<br>Approving of it, and referring Commissioner to orders of 1874, regarding the payment of gratuities and pensions to Police men when discharged. | No. 6398—1286, dated 4th Nov. 1875. | ... | *Vide* Progs. for October 1874, Part I. "Judicial" Index Nos. 1 to 2. | 28 |
| 9 to 10 | *Petition from Narasimhabharatiswami of the Kudli Matt.*<br>Forwarding it to Nagar Commissioner for report, and explanation on the point noticed. | No. 6401—135, dated 4th Nov. 1875. | ... | ... | 29 |
| 11 to 12 | *Section XXXV of Bombay Act I of* 1865.<br>Passing orders on a communication from Nundydroog Commissioner recommending that the rules prescribed under it be introduced into all the settled taluks of his Division. | No. 6407—221, dated 4th Nov. 1875. | ... | ... | 29 |
| 13 to 14 | *B. Tirumalachar, late Judicial Sheristadar of the Mysore District.*<br>Passing orders on his case after further consideration. | No. 6456—1301, dated 5th Nov. 1875. | ... | *Vide* Progs. for March 1875, Part I. "Judicial" Index Nos. 5 to 6. | 30 |
| 15 to 16 | *Demarcation of the boundary line between Malabar and Mysore.* | No. 6477—230, dated 6th Nov. 1875. | ... | ... | 31 to 32 |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| | Directing that the Assistant Conservator of Forests be deputed to proceed in company with the Amildar of the Gundlupet Taluk, and assist the Deputy Conservator of Forests in Wynad in carrying out the duty. | | | | |
| 17 to 18 | *Trigonometrical Station at Rajugondla-halli.*<br>Communicating papers having reference to it to the Superintendent of the Great Trigonometrical Survey. | No. 6766—1358, dated 19th Nov. 1875. | ... | *Vide* Progs. for October 1874, Part I. "Dept. of Rev., Agri. and Commerce," Index Nos. 31 to 32. | 33 |
| 19 to 20 | *Supply of Carts to Mr. James, Assistant Superintendent, Mysore Revenue Survey.*<br>Passing orders on further correspondence on the subject. | No. 6882—1393, dated 26th Nov. 1875. | ... | *Vide* Progs. for August 1875, Part I. "General", Index Nos. 26 to 27. | 34 to 40 |
| 21 to 22 | *Cultivation of Bamboos for the manufacture of paper stock.*<br>Directing that an experiment be made in the Government Experimental Farm at Bangalore. | No. 6906—1397, dated 26th Nov. 1875. | ... | ... | 41 to 54 |
| 23 to 24 | *Meteorological Returns.*<br>Forwarding to Madras Government correspondence received from the Government of India, with a view to the information called for being supplied. | No. 6916—23, dated 27th Nov. 1875. | ... | ... | 55 |
| 25 to 26 | *Examination of Assistant Commissioners and Munsiffs.*<br>Passing orders on a communication from the Officiating Judicial Commissioner on the subject. | No. 7020—1416, dated 29th Nov. 1875. | ... | ... | 56 to 57 |
| 27 to 28 | *Candidates for the Amildar's Test, Ashtagram Division.*<br>Passing orders from Commissioner on the subject. | No. 7027—247, dated 30th Nov. 1875. | ... | ... | 58 to 59 |

From the Officiating Secretary to the Government of India, To the Chief Commissioner of Mysore and Coorg, No. 19—387, Home Department, Sanitary, dated Simla, the 15th October 1875.

I am directed to forward the accompanying Despatch from Her Majesty's Secretary of State for India, giving cover to a Memorandum by the Army Sanitary Commission on the Report of the Sanitary Commissioner with the Government of India for 1873, and to draw attention to the observations of the Commission on the great mortality among prisoners and the need that exists for urging on sanitary improvements.

No. 77 (Statistics and Commerce), dated 5th August 1875.

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From Her Majesty's Secretary of State for India, To the Government of India, No. 77, dated India Office, London, the 5th August 1875.

I forward, for the consideration of Your Excellency, and for such action as may be necessary, a copy of a memorandum by the Army Sanitary Commission on the report of the Sanitary Commissioner with your Government for 1873.

2. I notice with satisfaction that the mortality in that year among European troops is stated to be the lowest hitherto recorded. This result has, no doubt, been brought about by the co-operation of many causes, of which the increased attention to sanitary requirements is only one, and it must not lead us to overlook the fact that prolonged experience indicates the necessity for ever continued caution and for the careful prosecution of inquiry into all local causes of disease, with a view to their removal or diminution to the utmost.

3. The reports I receive from the Sanitary Officers of various parts of India lead me to trust that this systematic inquiry continues to be carefully carried out under Your Excellency's orders.

4. It would be desirable in future, when the Annual Sanitary Reports are transmitted to me, that they should be accompanied by an expression of the views of your Government or of the Local Governments on any important matters referred to therein.

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Remarks of the Army Sanitary Commission on Tenth Annual Report of the Sanitary Commissioner with the Government of India.

Dr. Cunningham's Report for 1873 contains the usual statistical account of sickness and mortality among British and Native troops and in jails, together with some details concerning the general population.

The Report is followed by further instalments of the Cholera Inquiry by Drs. Lewis and D. Cunningham, together with an important paper by Dr. Lewis on nematode hæmatozoa, and an account by Dr. D. Cunningham on fungi present in opium blight, two subjects neither of which come within the scope of the Army Sanitary Commission. The volume is concluded by the valuable annual statistics of the Indian army and jail population prepared by Dr. Dryden.

1. Perhaps the most important practical fact in the present volume is that the death rate among Her Majesty's British troops in India was 15·30 per 1,000, the lowest rate by upwards of 2 per 1,000 ever recorded in India.

The average strength of British troops during the year 1873 was 58,769, and the deaths in India were 899. But in order to arrive at the true death rate due to conditions of Indian service, we must add the deaths among invalids, of whom 1,747 were received at Netley, where there were 30 deaths.

The total deaths therefore were 929, raising the death rate to 15·8 per 1,000.

2. It is a striking testimony to the advantages of improved invaliding arrangements that about 600 men shipped in India as invalids were disembarked at Portsmouth in health, not having proceeded to Netley.

Of the 1,747 men who were received at Netley, 606 were finally discharged the service, so that the total permanent loss was as follows:—

| | |
|---|---|
| Deaths .. .. .. .. .. | 929 |
| Discharged invalids .. .. .. .. .. | 606 |
| Total Loss.... | 1,535 |

or 26 per 1,000 from all causes.

3. These results for 1873, when contrasted with the old death rate of British troops in India which ruled before the date of the Royal Commission on the sanitary state of the Indian army at an average of 69 per 1,000 for many years, no doubt shews great progress, but it must be borne in mind that the old death rates included losses from cholera often during great epidemics, while the total cholera deaths of 1873 amounted only to 47 for the whole of India, or ·8 per 1,000, so that deducting cholera the death rate in India and at Netley was 15 per 1,000.

4. It is necessary to call attention to this fact, because the state of the British army in India, so far as regards deaths, is apparently so satisfactory that there may be some danger of concluding that the work has been done.

Such a conclusion can, however, never be predicated of sanitary procedure. The constant tendency with local causes of disease and mortality is to intensify themselves. The battle is never gained unless the ground be kept. Until cholera and fever have ceased to appear as epidemics, it cannot be said that the death rates of European troops in India have been permanently reduced.

5. Dr. Cuningham gives facts to shew that, as regards health, "the favorable results of 1873 were general and not confined to any particular locality."

Thus, in the group of stations situated in Bengal Proper, the death rate in the decade 1860—69 was 25·57 per 1,000. In the three following years the rate was 16·54, 18·72, 18·23, while in 1873 the death rate was 14·21. But then comes a caution—that during the years preceding 1873 the rate consisted of minima and maxima vibrating between 14·38 and 39.04 per 1,000.

In the Gangetic Provinces and Oude the ten years' death rate was 28·59 per 1000; in 1873 it was 20·25. The lowest death rate of 1873 was 6·84 at Hazareebaugh; the highest, 23·95, was at Lucknow, of which nearly a fourth was due to cholera.

The group of stations in Meerut and Rohilcund had a death rate, during the same decennial period 1860-69, of 26·61 per 1,000. In 1873 the death rate was 15·05 per 1,000. In this group the death rate attained a maximum of 29·54 at Delhi, while at Bareilly it was only 3·91 per 1,000.

The Agra and Central India group exhibited the same irregularities in rates. During the ten-year periods, the death rate was 38·48 per 1,000; in 1873 it had fallen to 12·16 per 1,000. The highest rate, 24·92, was in Gwalior citadel; the lowest was 5·08 at Saugor. At Jubbulpore, in this group, the death rate was 12·66 per 1,000, to which cholera contributed 7·23 per 1,000.

The Punjab stations, with their occupation by above 12,000 men, afford satisfactory statistical evidence of improvement. During the ten-year period the death rate was 25·24 per 1,000. During the first year of the period 1860, the death rate was 14·20 per 1,000, a shade lower than it was in 1873, namely 14·29. The lowest rate, 7·66, was at Sealkote, the highest, 21·28, at Meean Meer. The Punjab stations had very high admission rates from fever.

At the ten Himalaya Hill stations the death rate in 1873 was 9·88 per 1,000, on a seven months' occupation, by 4,903 individuals.

The six Convalescent Depôts had an average occupation of 2,052, and a death rate of 11·21 per 1,000. The highest ratio, 25·16, was at Murree; the lowest, 2·33, was at Dalhousie. Nearly a third of the mortality was due to hepatitis.

In the Madras and Bombay groups of stations the death rates lay between 24·08 per 1,000 in Burmah and 12·37 in the Deccan and Nagpore stations. In this group Bangalore and Madras had the very low death rates of 8·30 and 7·49. Generally the Bombay stations shewed large varieties in rates. Belgaum had a death rate of only 2·82 per 1,000, while other stations gave unfavorable results as concerns general health.

6. The great lesson taught by these statistical data is that little dependence can be placed on one or two years' results, especially when epidemic diseases happen to be dormant. Hence they afford no reason for intermitting sanitary work, but rather the reverse, for they shew that, after the great advances

which have been made in dealing with general disease causes, the chief danger still lies in the ever possible outbreak of cholera or fever, and that future safety must be sought in searching out and removing every local condition likely to predispose to these epidemics.

The past experience of Fort William affords very valuable data on which to proceed, because its death rate has not only been very greatly reduced, but the reduction has continued, while other stations were suffering.

Formerly it was about 12 per cent. During the ten years following 1860 it averaged 25·19 per 1,000 arriving in later years at what appears to be a permanent reduction of mortality. In 1873 the death rate of Fort William was 9·31 per 1,000. Formerly it was the deadliest station in India; now it is perhaps the most healthy.

Of late years even cholera, although committing ravages all around it, has never been able to obtain a footing inside its walls.

It may safely be said that what has been accomplished in Fort William may be done anywhere.

7. Divided among the Presidencies, the death rates among British troops were in the following ratios:—

| | Deaths per 1,000. |
|---|---|
| Bengal ... ... ... ... ... | 15·40 |
| Madras ... ... ... ... ... | 18·29 |
| Bombay ... ... ... ... ... | 11·72 |

The following abstract given by Dr. Cuningham shews the causes of death:—

Deaths per 1,000.

| Bengal. | | Madras. | | Bombay. | |
|---|---|---|---|---|---|
| 1. Hepatitis ... ... | 1·80 | Hepatitis ... | 4·0 | Hepatitis ... | 2·35 |
| 1. Enteric fever ... ... | 1·53 | Dysentery ... | 3·65 | Apoplexy ... | 1·41 |
| 3. Heart diseases ... | 1·42 | Heart diseases ... | 2·18 | Enteric fever ... | 1·31 |
| 4. Malarial fevers ... | 1·39 | Injuries ... | 1·92 | Heart diseases ... | 1·22 |
| 5. Apoplexy ... ... | 1·37 | Cholera ... | 1·22 | Phthisis pulmonalis ... | 1·03 |
| 6. Phthisis pulmonalis ... | 1·20 | Phthisis pulmonalis ... | 1·13 | Injuries ... | ·75 |
| 7. Respiratory ... | 1·15 | Apoplexy ... | ·96 | Dysentery ... | ·56 |
| 8. Injuries .. ... | 1·09 | Enteric fever ... | ·78 | Malarial fevers ... | ·56 |
| 9. Cholera .. ... | ·90 | Malarial fevers ... | ·70 | Respiratory ... | ·38 |
| 10. Dysentery ... ... | ·79 | Suicidal deaths ... | ·44 | Suicidal deaths ... | ·28 |

The next abstract shews the more frequent admission causes, and contrasts strikingly with the deaths:—

Admissions per 1,000.

| Bengal. | | Madras. | | Bombay. | |
|---|---|---|---|---|---|
| Malarial fevers ... | 516 | Malarial fevers ... | 236 | Malarial fevers ... | 486 |
| Venereal diseases .. | 167 | Venereal diseases ... | 152 | Venereal diseases ... | 181 |
| Respiratory diseases ... | 84 | Dysentery ... | 91 | Respiratory diseases ... | 70 |
| Rheumatism .. | 59 | Hepatitis ... | 81 | Hepatitis ... | 52 |
| Hepatitis ... | 50 | Diarrhœa ... | 76 | Rheumatism ... | 50 |
| Diarrhœa ... | 49 | Respiratory diseases ... | 59 | Diarrhœa ... | 43 |
| Dysentery ... | 29 | Rheumatism ... | 52 | Dysentery ... | 27 |

This abstract shews anew the great importance of malarial diseases to the health of troops.

In former years, admissions from venereal diseases approached closely in numbers to those from fevers. If the nomenclature of venereal diseases is exactly what it was, then this abstract shews considerable diminution in these affections as a whole.

8. The history of cholera in 1873 affords several points of interest.

Its degree of prevalence among the civil population is shewn in the following abstract:—

| Provinces. | Population under registration. | Deaths from Cholera. |
|---|---|---|
| Bengal ... ... ... ... ... | 63,498,831 | 64,366 |
| North-West Provinces ... ... .. ... | 30,769,056 | 15,268 |
| Punjab ... .. ... ... ... | 17,487,125 | 148 |
| Oudh ... ... ... ... ... | 11,185,357 | 3,961 |
| Central Provinces ... ... ... ... ... | 7,230,700 | 344 |
| Berar ... ... .. ... ... | 2,184,945 | None. |
| British Burmah ... ... ... ... .. | 2,703,424 | 8,109 |
| Madras ... ... ... ... ... | 30,287,842 | 840 |
| Bombay ... ... .. ... ... | 16,235,611 | 283 |

It appears from these figures that epidemic intensity attained a maximum in Bengal, from whence the epidemic shaded off through the North-West Provinces and Oudh into the Punjab. Another table shewing the monthly attacks of cholera gives data which appear to prove that the epidemic existed in January and onwards in all these provinces; that the law of progressive increase and maximum followed closely on the course taken by the disease in Bengal; and hence that any appearance of movement of the epidemic was due to increase of intensity rather than to geographical change of place. This view, however, requires to be modified when the facts of distribution within each province are examined in detail. It is then found that in Bengal proper there are districts in which the maximum mortality took place in January during an outbreak which had probably passed over from December 1872, and that the maxima moved north-westwards from the districts in the delta of the Ganges. The apparent movement was hence not a progression of the disease but of the maximum. This point, to which attention has been previously called, may eventually furnish a clue to presumed cases of importation of the disease, by shewing that apparent spread of cholera from intercourse is, in all probability, due to increase of intensity during which a greater number of persons are attacked in a given time.

The eastern districts of the North-West Provinces, 11 in number, afford further illustration of this point. In January, 4 districts only were attacked; in February 8; in March 9; and all were attacked in April. This was the maximum period round Calcutta. But in these North-West districts the maxima were between May and September, when cholera had declined in the delta, clearly shewing that there was a movement of the maxima towards the North-West. This law of maximum held good in the North-West Provinces generally, except in Kumaon where the maximum continued from February to June contemporaneously with the maxima, not in the North-West Provinces, but in the Ganges delta, between which and Kumaon all the other districts of the North-West Provinces and Oude are situated.

The maximum period in Oude districts was the same as in those of the North-West Provinces, in some of them passing on to December.

The Punjab epidemic consisted of scattered cases occurring from January onwards.

There are 21 districts in the Central Provinces, in 7 of which there were deaths from cholera.

The most important outbreak, giving rise to 309 deaths, took place in Sumbulpur District, chiefly in February, March and April, but also in September and October. The earlier outbreak was supposed to be due to importation. On comparing the dates of this outbreak with the statistical facts in the three adjoining districts of Bengal, it is found that there were two epidemic outbreaks in these districts, Balasore, Cuttack and Pooree, and that the first of these corresponded in time with the Sumbulpur epidemic, namely, February, March and April.

The outbreaks in Madras and Bombay were so scattered as scarcely to call for remark.

The epidemic in Burmah was a severe one. It corresponded in time and in intensity to the epidemic in Lower Bengal, but it was not continuous with it in space. The three districts of Burmah nearest

Bengal escaped almost entirely, and cholera broke out in its epidemic form in January at Rangoon, and southwards in January, and farther north not till February and March. Its first point of attack was about 350 miles from Bengal. Probably it was part of a more extensive epidemic affecting Burmah to the eastwards.

9. The following abstract shews the relation between cholera among British troops and among the civil population of districts within which the stations are situated:—

| District. | Date of first death. | Total deaths. | Stations. | Date of first death among troops. | Total deaths among troops. |
|---|---|---|---|---|---|
| 24-Pergunnahs ... Calcutta ... Howrah ... | January ... | 4,830 | Fort William ... | June ... | 1 |
| Patna ... | January ... | 2,515 | Dinapore ... | April ... | 1 |
| Benares .. | January ... | 1,738 | Benares ... | May ... | 2 |
| Fyzabad ... | March ... | 106 | Fyzabad ... | November (case) ... | None. |
| Lucknow ... | January .. | 145 | Lucknow ... | September ... | 13 |
| Seetapore ... | April ... | 15 | Seetapore ... | August (case) ... | None. |
| Cawnpore ... | February .. | 149 | Cawnpore ... | August ... | 5 |
| Allahabad ... | January ... | 876 | Allahabad ... | June ... | 5 |
| Meerut .. | January ... | 53 | Meerut ... | October ... | 1 |
| Jubbulpore ... | February ... | 2 | Jubbulpore ... | September ... | 4 |
| Umballa ... | April ... | 6 | Umballa ... | September (case) ... | None. |
| Tonghoo ... | March .. | 325 | Tonghoo ... | April (case) ... | None. |
| Theytmyo .. | March ... | 920 | Thyetmyo ... | April ... | 12 |

There were cholera cases at 13 stations of British troops. In every case the disease existed among the surrounding native population. In two instances (in Burmah) the troops were attacked within a month after the civil population. In one instance the interval was 3 months; in three instances 5 months; in two instances 4 months; in one 6 months; in another case 7 months; in two 8; and in one the interval was 9 months.

These data shew anew that, before cholera attacks British troops in any district, it may have existed for months among the surrounding population, and that, as intercourse throughout the districts and stations remained the same as usual, it can scarcely be affirmed that the facts prove importation of cholera into the stations.

Thus far the statistical evidence appears to lead, but it would be very important to enquire more closely into the history of cases at the stations, to shew distinctly that there either was or was not a transfer of the disease from people outside to troops affected in barracks.

10. There were 44 deaths from cholera among Native troops serving in Bengal Presidency.

The death rate was considerably in excess of the death rate among British troops. Most of the deaths took place at stations in Lower and Eastern Bengal, and the times of attack corresponded closely with the periods of greatest intensity in the districts.

11. Among the jail population cholera attacks exhibited a similar relation in time to attacks among the Native population; but a far larger proportion of jails were attacked than of stations, and the death rates were very much higher.

Dr. Bryden's tables are confined to the jail population of Bengal Presidency, and the outbreak was confined almost entirely to jails to the eastward and south-eastward of Allahabad.

There are 40 jails in the upper portion of the attacked region, having a population of 23,667. Twenty jails were invaded by cholera, and 95 prisoners died, equal to a death rate of 4·02 per 1,000.

In Lower and Eastern Bengal, 28 jails out of 48 were invaded. The jail population amounted to 16,174, of whom 104 died, equal to a death rate of 6·44 per 1,000. In this instance also the disease was most severe in those parts where the general cholera death rate was highest among the civil population.

Of the three groups, *viz.*, British troops, Native troops, and jails, the disease existed in force among the civil population before any of them furnished cases of cholera. It is to be hoped that the jail reports may give detailed accounts of each outbreak and of the causes to which it ought to be attributed.

Some explanation is wanted of the fact that prisoners in parts of the country where cholera prevailed have suffered so much more than either British or Native troops.

12. Orders were issued for tracing the history of attacks among the troops, but the results as a whole were not deduced at the date of Dr. Cuningham's Report. Dr. Cuningham says that so far as he had had opportunity of studying the history of these attacks, there was an absence of evidence to prove that the disease was due to importation, " nor has a single fact been adduced to support the idea that the disease once introduced spread by contagion."

13. The facts and deductions in Dr. Cuningham's Report for 1872 having been called in question by those who have adopted the theory of contagion as affording an adequate explanation of the spread of an epidemic, and to enable any corrections in fact to be made, copies of the report of 1872 were widely circulated, and specially sent to medical officers of both British and Indian regiments " so that errors might be pointed out and rectified." The result, Dr. Cuningham says, " has been very satisfactory; no mistake on any important matter of fact has been brought to notice, nor has any additional information of value been furnished. There is no reason, therefore, to alter the account then given of the epidemic of that year, or to modify the general conclusions which were expressed regarding it."

These conclusions may be briefly summarized as follows:—

(1.)—If human intercourse plays any part in disseminating cholera, " it must be a very secondary part."

(2.) That the immunity of attendants on cholera cases and the facts of outbreaks are opposed to the view that this disease is spread from the sick to the healthy.

(3.)—That facts cannot be explained on the theory that cholera is due to water tainted by cholera discharges.

(4.)—That there is no evidence to support the theory of multiplication of poison in persons attacked with cholera, or that the disease is spread by choleraic excreta.

(5.)—That cholera in India appears to be due to certain conditions of air and soil, or both, apparently of local character, " and that the great danger arises from exposure to these conditions, and not to exposure to any emanations from the sick."

(6.)—That, even on the assumption that cholera is contagious, the application of quarantine would be impracticable and injurious.

(7.)—That the great safeguards against cholera are sanitary improvements, directed not against any one assumed danger (such for instance, as keeping choleraic fluids out of water, to the neglect of ensuring that water is kept pure from other putrescing matters) but directed to the removal of all local disease causes.

14. It would have been more satisfactory if the results of the Indian cholera investigation had, at the same time, placed the doctrine in regard to cholera and measures required to cope with the disease on an absolutely scientific basis. This position has not yet been gained, and until it has been gained, and seeing that active measures must be taken to deal with cholera wherever it threatens to come, there is no other safe course to follow than to rely on the results of observation and experience.

These are unquestionably unfavorable to any dependence being placed on internal quarantine. Whatever truth there may be in the theory of cholera communicability, it cannot, from experience gained up to the present time, be made the basis of measures for protecting Indian stations, still less native communities.

The only alternative is to improve the sanitary condition of both troops and people. Every fresh experience tends to shew that sanitary measures are the only safeguards in which any trust can be placed, and that to transfer that trust to cordons would simply be to surrender to the enemy. Further investigations may possibly lead to better knowledge of the development and extension of cholera, but until this result is attained, no practical account can be taken of it.

15. During 1873 there were registered 237,835 deaths from small-pox, a number considerably below the truth, as the registration of deaths in Bengal "is still most defective." The mortality to population varied between ·52 and 3·81 per 1,000.

The lowest of these rates was in Burmah, where the registration is allowed to be most defective, but the lowest death rate in India, namely ·61 per 1,000, was in Bombay Presidency, where the most complete system of vaccination is in force.

There were 11 small-pox deaths among British troops in India, a mortality of ·19 per 1,000, which may be taken as collateral evidence of the efficiency of vaccination as a preventive measure. The great mortality among the civil population points not only to the necessity for extending vaccination, but for pressing forward sanitary improvements.

16. Deaths from fevers registered among the civil population were 1,647,411, an enormous mortality were it all due to the registered cause. Facts lately brought to light shew that many other diseases are classed as fevers in the death returns, but, making any reasonable deduction on this account, there can be no doubt of the great loss of life due to malarial causes. What has been often said with reference to these fevers may be here repeated, *viz.*; that they prove the existence of bad land drainage for agriculture, bad culinary water, and general sanitary defects in villages and houses.

There is no remedy for fevers, the scourges of India, except by remedying these evils. As already shewn, these malarial fevers are a serious cause of inefficiency in the British Army serving in India. The admissions from them in 1873 were as follow :—

| | | |
|---|---|---|
| Bengal Army | ... | 516 per 1,000 |
| Madras „ | ... | 236 „ |
| Bombay „ | ... | 486 „ |
| All India „ | ... | 456 „ |

Forty-five and a half per cent of the British force passed through hospital for malarial fevers in 1873.

17. Enteric fever cases occurred in 44 out of 93 stations of British troops scattered all over India. In 1873 there were among British troops in—

| | Cases. | Deaths. |
|---|---|---|
| Bengal Presidency ... | 144 | 56 |
| Madras „ ... | 49 | 9 |
| Bombay „ ... | 17 | 14 |
| All India..... | 210 | 79 |

Calculated on the strength the ratios of attacks and deaths were as follow :—

| | Per 1,000 strength. Cases. | Deaths. |
|---|---|---|
| Bengal ... | 3·9 | 1·53 |
| Madras ... | 4·2 | ·78 |
| Bombay ... | 1·6 | 1·31 |
| All India ... | 3·6 | 1·34 |

Enteric fever as a death cause attains a new importance when the losses from it are compared with the losses from cholera in 1873, thus :—

Deaths, 1873.

| | Enteric fever. | Cholera. |
|---|---|---|
| Bengal ... | 56 | 33 |
| Madras ... | 9 | 14 |
| Bombay ... | 14 | None. |
| India ... | 79 | 47 |

Until lately, enteric fever was considered to be a new disease imported into India, but there is every reason to believe that this disease has existed in India in past time, although not separated from other fevers of severe type.

Dr. Cuningham has given a table shewing the deaths per 1,000 from fevers for a period of 14 years; but enteric fever does not occur in it as a death cause until the last three years of the series. During the first 11 years the deaths are classified as from intermittent, remittent and continued. Now the average death rate from these three fevers during these 11 years was 3·59 per 1,000.

The last three years in the returns give the death rates of four fevers, intermittent, remittent and continued and enteric, the average for which is 3·42 per 1,000. On comparing this ratio with the ratio 3·59 for the three older fevers, it appears in the highest degree probable that among them there were cases now separated as "enteric."

A similar change has passed over the nomenclature of fevers among Native troops. Formerly natives of India were supposed to enjoy immunity from "typhoid," but since attention has been more closely directed to the subject, this is not found to be the case. In the statistics of 1872 enteric fever first makes its appearance as a death cause in the Native army, in which year there were seven cases and four deaths. In 1873 the number had risen to 18, and the deaths to 10. Enteric fever has also been detected among the civil population. There have been difficulties in diagnosis, partly arising from the darkness of the skin among natives. But the fact must henceforth be admitted, and the apparently anomalous circumstance of the existence of causes of enteric fever in great intensity without producing their characteristic effects on local fevers will cease to exist.

The practical result of this discovery is that increased vigilance is required in dealing with all local sanitary defects connected in any way with the presence of putrescing matters in air, earth, or water, and it points also to the absolute necessity of cleansing and improving all bazaars and native towns to which British troops have access.

18. There was a lower death rate in 1873 from sun-stroke and apoplexy, dysentery and diarrhœa than there was in 1872 among British troops. At the same time in 1873 no fewer than 217,448 deaths from bowel complaints were registered among the civil population.

The highest ratio, 2·58 per 1,000, was attained in the Central Provinces, the lowest ·31 in Oudh.

One satisfactory circumstance connected with the personal hygiene of British troops serving in India was the reduction of deaths from delirium tremens. There were five deaths from this cause in the whole Indian Army, equal to a death rate of ·09 per 1,000, but unfortunately the statistics shew that 8 men died while drunk, and that 5 were suffocated while drunk. The deaths from drink directly were thus 18, which may be compared with the 47 deaths from cholera during the same year.

If it were possible to separate in the returns deaths indirectly caused or hastened by intemperate habits,—diseases of the heart and blood vessels, hepatic and cephalic diseases,—it would be found that the alcoholic mortality is becoming a more predominant cause of loss than it has been comparatively in past times.

19. Dr. Cuningham gives data to prove that the amount of venereal disease among the British troops in Bengal Presidency had undergone a considerable reduction in 1873.

The admissions per 1,000 for the last five years have been :—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1869 | ... | ... | 200 | 1872 | ... | ... | 190 |
| 1870 | ... | ... | 202 | 1873 | ... | ... | 167 |
| 1871 | ... | ... | 208 | | ... | ... | |

But comparative statistics of lock hospital stations render it difficult to assign this reduction purely to the influence of these hospitals.

Thus Dr. Cuningham gives the statistics for three groups of stations for 1872 and 1873, distinguishing those stations at which there are no lock hospitals from those where such hospitals have been in operation, and dividing the stations at which there has been an increase of admissions from those where there has been a reduction.

There are ten stations without lock hospitals, and, by dividing the sum of admissions per 1,000 by the number of stations, it appears that the average admissions at these ten stations amounted to 148 per 1,000 in 1873, as against 119 per 1,000 in 1872.

There are 45 stations protected by lock hospitals, at 17 of which there was increase of admissions in 1873 over 1872, while at 28 stations there was a reduction. By applying the same method with

these stations, it is found that at the stations shewing increase the admissions in 1873 were 198 per 1,000 as against 127 per 1,000 in 1872. At 28 stations shewing a decrease, the admissions per 1,000 were 141 in 1873, as against 201 in the preceding year.

On comparing the results for two years at 45 protected stations and 10 unprotected stations, the figures per 1,000 stand as follow:—

| | 1872. | 1873. |
|---|---|---|
| 45 protected stations ... ... ... ... | 173 | 163 |
| 10 unprotected stations ... ... ... ... | 119 | 148 |

The ratios of admissions per 1,000 for the two years would thus be represented by the figures:—

336 for protected stations, and
267 for unprotected stations.

The data, although only approximate, appear to shew that there is some law of increase and diminution of venereal cases apart from the action of lock hospitals.

Attention has been called to this point in previous papers as one requiring investigation, but there can be no doubt of the decreased admission rate generally, from whatever causes it may have arisen. The result is, at least, not opposed to the influence of lock hospitals.

Referring to these reductions, Dr. Cuningham says that, "while the results of 1873 are certainly encouraging, especially in the decided diminution of the graver forms of venereal disease, it must be admitted that much remains to be done in order to render the rules really effective. On this point I have considered the various statements and suggestions which have been made either by medical officers or by the authorities, both civil and military, through whose hands their reports have passed. The great evil to be dealt with is unlicensed prostitution..... Detective police have been found useful in one place, while in another they have been discharged as useless. The same may be said of detective dhaies."

But he adds that, on the whole, the authorities have endeavoured to diminish the evil with a considerable measure of success.

20. Experience with new regiments in 1873 suggests a few important practical considerations. Out of an average strength of 4,608 men newly arrived, there were 102 deaths = 22·14 per 1,000. Of these deaths, 38 were due to enteric fever, and probably one or two more; 18 men died of hepatitis, and 10 of apoplexy. The following table, extracted from the report, shews the effect of new arrivals:—

| | Deaths per 1,000. | |
|---|---|---|
| | Army of India. | New regiments, 1873. |
| Enteric fever ... ... ... ... ... ... | 1·34 | 8·25 |
| Hepatitis ... ... ... ... ... ... | 2·33 | 3·91 |
| Apoplexy ... ... ... ... ... ... | 1·29 | 2·17 |

Facts of this class shew very clearly the necessity, long understood, of making some provision for acclimatizing new arrivals in India, before exposing them to the usual risks of service on the plains.

21. The former abstract shews the invaliding for 1873:—

| | Number sent home. | | |
|---|---|---|---|
| | For change. | For discharge. | Total. |
| Bengal ... ... ... ... ... | 976 | 416 | 1,392 |
| Madras ... ... ... ... ... | 498 | 103 | 601 |
| Bombay ... ... ... ... | 365 | 76 | 441 |
| India ... ... ... ... ... | 1,839 | 595 | 2,434 |

As already stated, there were 606 invalids finally discharged at Netley, and a large number of the men sent home had recovered health before arriving in England.

The total loss, permanent and temporary, to the Indian Army is stated by Dr. Cuningham as follows:—

| Presidency. | Per 1,000 average strength. | | |
|---|---|---|---|
| | Died. | Invalided. | Total loss. |
| Bengal ... ... ... ... | 15·40 | 42·16 | 57·56 |
| Madras .. ... ... ... | 18·29 | 52·32 | 70·61 |
| Bombay ... ... ... ... | 11.72 | 43·67 | 55·39 |
| India ... ... .. ... | 15·30 | 44·58 | 59·88 |

22. It is very satisfactory to see from the present report that the health of soldiers' families is undergoing improvement, together with the health of troops.

The death rate among soldiers' wives in 1873 was, for Bengal 22·81, for Madras 14·02, for Bombay 17·11 per 1,000, and for the whole of India 19·02 per 1,000.

The children's death rate, though still very high, has also undergone marked reduction.

In the whole of India the children's death rate was, in—

| | | | | |
|---|---|---|---|---|
| 1871 | ... | ... | ... | 74·21 per 1,000 |
| 1872 | ... | ... | . | 99·08 „ |
| 1873 | ... | ... | ... | 60·29 „ |

The death rates in the Presidencies during 1873 were, for Bengal 67·97 per 1,000, Madras 51·39, and Bombay 48·50 per 1,000. It appears that of recent years the death rate of British population in India has been improving generally. Above one-fourth of all the children's deaths in 1873 took place under six months after birth, and before the expiry of 18 months from birth the death rate was no less than 69 per cent of the total deaths. Out of the total of 714 deaths among children, 660 took place under five years of age, proving anew the necessity of better management of children in India.

Bad as is the present state of matters, it is better than it used to be, proving that more care had been taken of the children. The simple fact given in the statistics that out of 714 deaths, 35 only were due to children's epidemics, and 433 to dentition convulsions, tabes mesenterica, diarrhœa, and anæmia, is enough to shew how much must yet be done by careful nursing, feeding, and domestic management, to reduce the present excessive death rate.

23. The death rates among British Officers in and out of India in 1873 were—

| | | | |
|---|---|---|---|
| Officers of British Army | ... | ... | 10·23 |
| „ of Indian „ | ... | ... | 21·59 |

The most predominant death causes appear to have been of inflammatory character.

24. There is no reliable statistical record of the health of cantonment population in Bengal Presidency, a deficiency which, it is hoped, will be supplied by more accurate registration.

25. The following account of sanitary progress is given by Dr. Cuningham for the year ending March 31st, 1873:—

"At almost every station, works were either in progress or had recently been completed, the object of which was the better health and greater comfort of the European soldier, or the general sanitary improvement of the cantonment. These works were more or less extensive in their character, but chiefly include the completion of barracks and hospitals, the provision of subsidiary buildings, and minor details. In the important matter of water-supply progress has not been so rapid as could be desired. In this

**Presidency the larger works of Peshawur, Dalhousie, Kohat and Meean Meer are proceeding, and projects are in hand for Umballa and Delhi."**

He states that since 1862-63 the sum of 200,000*l.* has been spent in water-supply improvements; not a large amount, considering what has been proved to be the condition of existing water sources at stations of British troops.

The most extensively introduced improvement has been apparently the dry-earth conservancy which has been sanctioned in British regiments as " its superiority has now been established beyond question." In all damp climates, however, the earth has to be dried before use.

26. In Section 2 of Dr. Cuningham's Report are discussed the statistics of the Native army in Bengal Presidency. Dr. Bryden's statement gives the regimental strength of this army as 44,332 ; the total deaths, absent and present, as 754, shewing a death rate of 17·01 per 1,000 higher by above 1½ per 1,000 than the death rate of British troops in Bengal Presidency.

The chief admission causes in all the branches of the native army were fevers. There were, for the regular army, 676 per 1,000 ; Central Indian regiments 206 ; Punjab Field Force 875 per 1,000, probably due to the specialities of frontier service ; Madras regiments, 384 per 1,000.

In all the branches there was a considerable reduction of admissions from all causes except in the Madras force.

The highest death rates were due to respiratory diseases, and to these fever deaths followed next in order.

The following abstract gives the death rates for the chief diseases in the different branches of the Native army :—

| Diseases. | Deaths per 1,000. | | | |
|---|---|---|---|---|
| | Regular Native Army. | Central Indian Regiments. | Punjab Frontier Field Force. | Madras Regiments. |
| Respiratory diseases ... ... | 3·15 | 4·50 | 4·42 | 1·67 |
| Fevers ... ... ... | 2·92 | 1·80 | 4·22 | 1·38 |
| Cholera ... ... ... | 1·12 | ·23 | None. | ·56 |
| Diarrhœa ... ... ... | 1·02 | None. | ·10 | None. |
| Dysentery ... ... | ·89 | ·23 | ·41 | ·56 |
| Phthisis ... ... | ·79 | ·44 | ·50 | ·84 |
| All causes, 1873 ... | 13·92 | 11·26 | 13·87 | 7·53 |

On a former occasion attention was called to the apparent relation between deficient clothing, bad and overcrowded huts, and damp subsoil, and the prevalence of respiratory diseases in the Native army.

These statistics seem to justify further enquiry into the subject. Fevers, the most prevalent of all diseases, may be connected with similar local causes. What is wanted is some account of Native stations, and the relation of these to prevalent diseases.

27. The third section of the Report, devoted to the sanitary condition of jails, gives a very unfavorable account of this important branch of the public service.

The average strength of prisoners during 1873 was 67,037 ; the deaths were 2,888=43·08 per 1,000. Out of the 2,888 deaths, 199 were due to cholera, 12 to small-pox, 4 to enteric fever, 42 to typhus, 66 to intermittent fever, 255 to remittent and continued fevers partly caused by " contagious fever," the existence of which in jails ought to be a matter of urgent inquiry with the view of preventing such a state of things. There were 824 deaths from dysentery, and 291 from diarrhœa. If to these be added 22 deaths from spleen disease, we shall find 1,722 out of 2,888 deaths, or nearly 60 per cent, due to zymotic diseases. Respiratory diseases occasioned 469 deaths, and phthisis 156.

It follows that eight-tenths of the mortality in the Jails of Bengal Presidency were due to zymotic and chest diseases.

Dr. Bryden has given an instructive table shewing the ratios of mortality in 161 jails, which reveals facts of very considerable importance, inasmuch as they shew that the death rates varied in an extraordinary degree.

For instance, Ajmere Jail, with an average strength for the year of 339, had only 1 death=to 2·95 per 1,800. The solitary death was due to some respiratory disease. Etah Jail, with an average population of 252, had 1 death, cause not stated—not zymotic nor respiratory=a rate of 3·97 per 1,000. Furreedpore Jail, 412 prisoners, had 3 deaths=7·8 per 1,000; of these 1 death was from fever, and 1 from respiratory disease. Etawah Jail with 291 prisoners had 1 death from bowel disease, and 1 from spleen disease—2 deaths in all=a rate of 6·87 per 1,000.

A few other jails scattered over Northern and Central India afford death rates not much above these, but unfortunately they are the exception. In a great number the deaths exceeded 25 per 1,000. In many they exceed 50 per 1,000, and in a number of jails the mortality was above 7 per cent.

The following examples will shew the rates and their causes in the worst class, beginning with those in which there were no deaths from cholera, and in which the jail population was sufficiently large to enable an approximate death rate to be deduced.

Delhi Jail, with 316 inmates, shews a death rate of 56·96 per 1,000, two-thirds of which were due to zymotic and chest diseases.

Umritsur, 701 prisoners, yielded a death rate of 55·63 per 1,000. Of the 39 deaths, 21 were due to fevers and 10 to chest diseases.

Lahore Central Jail, with 2,224 prisoners, yielded a death rate of 75·09 per 1,000. There were 167 deaths in all, of which 38 were from fevers, 1 from small-pox, 36 from bowel diseases, 6 from diphtheria, and 79 from respiratory diseases and phthisis, so that, out of 167 deaths, 71 were due to zymotic diseases, and 150 died from these and respiratory diseases conjoined.

Rawulpindee Jail had 963 prisoners, of whom 134 died=a death rate of 13·91 per cent. Fevers occasioned 91 deaths, of which 27 were from "typhus;" nearly 9½ per cent of the inmates died of fever.

Peshawur Jail, with an average of 533 prisoners, yielded a death rate of 13½ per cent. Of 72 deaths, no fewer than 40 were due to fever, and 6 to bowel diseases.

In none of the jails affected with cholera could it be said that this disease did more than add to an already high death rate, at least with one or two exceptions, such, for instance, as Roi Bareilly Jail, with 807 inmates, where the death rate was 37·17 per 1,000, of which cholera supplied 16·11 per 1,000.

Champarun Jail had a death rate, without cholera, of 110·59; cholera added 36·87 to this, raising the mortality to about 14½ per cent.

Gyah Jail had a death rate of above 13½ per cent without cholera, to which this disease added about 2 per 1,000. In this case, fevers (3 deaths) and bowel diseases (61 deaths) supplied 64 out of 68 deaths.

Other illustrations of these enormous death rates could be given, but it may be sufficient to shew the great importance of this question to cite the highest death rate in the returns (except in a very small jail), *viz.*, Bustee with 444 prisoners, where the death rate, without cholera, of which there was none, nearly equalled 15 per cent. In this case, out of 66 deaths, 46 were due to bowel diseases, and 14 to respiratory diseases.

Dr. Cuningham quotes the opinions of several medical officers on the presumed causes of these death rates. They resolve themselves mainly into averments that prisoners were unhealthy at the time of admission, "fever-stricken subjects from unhealthy localities;" weeding out young healthy prisoners for transfer, leaving the older and sickly behind; overcrowding of jails; bad site and defective construction of jails.

On reviewing the reports, Dr. Cuningham very properly remarks that "it is not satisfactory to find that, in a year of more than average health throughout the Bengal Presidency, the sickness and mortality among the prisoners have both been higher than in 1869, a year of wide-spread and severe epidemics. In many jails, they have suffered in common with the general population of the surrounding districts" (which, it may be remarked in passing, ought scarcely to be expected in a properly con-

structed jail), "but there is good reason to believe that in others diseases were connected with, or aggravated by, overcrowding and other insanitary conditions. So far as the sanitary administration of jails is concerned, the discovery and removal of these defects—the local disease causes—must be the great object in view."

All this is fully justified by Dr. Bryden's statistics, and it may be added that after the results obtained from jail improvements in Madras Presidency, mentioned by the Commission on a former memorandum, it would scarcely be fulfilling their duty if the Commissioners did not urge the consideration of the whole subject on the attention of the proper authorities.

27*a*. The concluding section of Dr. Cuningham's Report for 1873 is devoted chiefly to the discussion of registration of deaths, which is shewn to be in an unsatisfactory condition. As the Commission has already included this matter in previous papers, it is not necessary to refer to it further than to commend Dr. Cuningham's views to the authorities.

There is, however, one statistical fact to which attention may be directed, namely, that in 1873 no fewer than 21,461 persons died in consequence of snake-bite and the attacks of wild beasts.

The first of these death causes is not given separately, but it may be again suggested whether the proposals of Dr. Fayrer for dealing with this death cause mentioned in other papers might not be tried. Destruction of venomous snakes, and giving the people a pecuniary interest in destroying them, is apparently the only remedy for this scourge.

28. There is only one paragraph in the Report No. 115, devoted to the question of "sanitary progress." It refers to the progress made by municipal bodies, which has been dealt with on other papers, also to the very important works in hand for the more perfect drainage of canal irrigated land in the Meerut, Mozuffernuggur, and Boolundshuhr districts, for which 45,000*l* had been allotted.

As a whole, the report shews the necessity for sanitary work of a practical character, and it appears at the same time to shew that past efforts in this direction have been distinctly followed by improved health.

29. Dr. Cuningham's own Report is followed by an Appendix by Drs. Lewis and D. Cunningham, containing further contributions to the cholera enquiry. It consists mainly of an extension and rectification of previous investigations, and the portion of the work to which the present Appendix refers may be said to be tolerably complete.

Sections A and B give the results of a comparative microscopic examination of healthy blood and of blood in cholera. In the latter, the white corpuscles are enormously increased. This will be best seen by placing side by side the columns in two tables describing the amount of white corpuscles :—

| Specimen. | Healthy blood. | Blood in Cholera. |
|---|---|---|
| 1 | Few. | Very abundant. |
| 2 | " | " " |
| 3 | " | Few. |
| 4 | " | Very abundant. |
| 5 | " | " " |
| 6 | " | " " |
| 7 | " | " " |
| 8 | " | " " |
| 9 | " | " " |
| 10 | " | " " |
| 11 | " | " " |
| 12 | " | Abundant. |
| 13 | " | Normal. |
| 14 | " | " |
| 15 | " | Abundant. |
| 16 | " | " |
| 17 | " | " |
| 18 | " | " |

This appears to be the chief element admitting of tabulation. The table from which the third column

above is quoted gives the results in 41 specimens of cholera blood taken from 22 cases of cholera, and the second column shews the results in 18 examinations of healthy blood from 10 cases. In two cholera cases only out of 22 did the white corpuscles exist as in normal healthy blood.

In all other instances, they exceeded considerably or greatly the healthy standard. A comparison is given by the reporter between the blood in cholera and in vaccinated persons, which shews that in one case out of five only did the amount of white corpuscles exceed that of healthy blood.

30. The most important modification undergone by the red corpuscles in cholera is a tendency to aggregate in irregular masses, instead of into the normal *rouleaux*, and the case with which the corpuscles altered their forms on pressure or movement of the fluid. The former of these conditions has been observed in the blood in septicœmia, typhoid, variola, measles, and charbon. The facts appear to point to profound changes in the constitution of the blood in cholera.

31. During these lengthened examinations, lasting over several years, no trace whatever has been found of any organisms in the blood of cholera patients.

The reporters say, in concluding the present inquiry: "As in all our previous examinations, not the faintest trace of evidence presented itself in favor of the presence of bacteria, or other foreign organisms or germs, in the blood of cholera; all the phenomena observed were ascribable to alterations, relative or absolute in the normal elements of the blood, not to the presence of any new or extraneous bodies of such a nature as to be detected by microscopical research. We have now examined numerous specimens of blood derived from cases of every degree of severity, and at every stage of the disease during life and shortly after death, and had the presence of foreign organisms in the blood been essentially related to the disease in one way or other, whether as causes of the diseased condition, or as indications of its existence, it is scarcely conceivable that they should have consistently failed to afford the slightest evidence of their presence. We are well aware that these statements are likely to be received with some incredulity by a very large number of the members of the medical profession, made as they are at a time when views regarding the important and almost necessary influence of 'germs,' 'bacteria' 'microzymes,' &c.; in the development of epidemic disease are so widely diffused and so much quoted; but in bringing our examinations of the blood from this point of view to a close we feel bound to state our results and conclusions distinctly."

32. This, then, is the final result of a long and laborious examination of the blood in cholera, extending over a number of years, conducted with great skill, perseverance, and fairness. It disposes once for all of Hallier's and all other cognate theories about the origin of cholera. Whatever cholera poison may be, it is not an entity which can be brought to light by the most practised observers, armed with the most refined appliances. And this being the case, these theories must henceforth cease to be taken into account as affording any ground for practical action. The hypothetical rice-cholera fungus, which bade so fair to give a clue to preventive measures as to induce the India Office to send the observers to India, is now proved to have been based on no sufficient warrant.

It may be here stated that reports from various regions of India contain detailed observations on Pettenkoffer's theory, which connected cholera with certain conditions of subsoil water. The examination of this theory was also placed in the hands of Drs. Lewis and D. Cunningham by the India Office, but up to the present time the theory has obtained no support from observation. The question, however, is not yet finally disposed of.

33. Besides these two inquiries on account of which Drs. Lewis and Cunningham were specially trained and detailed in India, these gentlemen have continued their investigations on the effects produced on healthy animals by choleraic matters, in order to determine a very important practical point, *viz.*, whether these substances exerted any specific poisonous effect on animals.

In previous reports, a considerable number of observations were recorded which appeared to shew that no results were produced by injections of cholera material into the blood and cavities of dogs differing from those caused by similar treatment with healthy excreta.

In one point, however, the experiments were not sufficiently numerous to shew the results of injecting perfectly fresh cholera excreta, so as to eliminate from the phenomena everything due to putrescence.

The present report, Part II, supplies the desired information, on the understanding that the question at issue in the experiments is simply whether fresh cholera excreta injected into the blood of animals is capable of producing any appearances which may be fairly classed as choleraic.

Reference must be made to the report for details, and it will be sufficient to give the comparative results of all the experiments hitherto made by the observers, and recorded in the present and preceding reports.

They are all placed together in the following summary table (Table XIX of the report):—

Total experiments on the effect of the introduction of solution of organic substances from various sources into the circulation of dogs.

| Number of experiments conducted. | Infecting material selected. | Where introduced. | Number affected. | Percentage of affected. |
|---|---|---|---|---|
| 76 | Solutions of choleraic evacuations ... | Vein ... | 34 | 44·7 |
| 26 | Solutions of normal evacuations ... | Vein ... | 7 | 26·9 |
| 26 | Solutions of various excrementitious matters ... | Peritoneum ... | 20 | 76·9 |
| 42 | Peritonitic exudation ... ... | Peritoneum ... | 10 | 18·4 |

The comparison of most importance to the present object in this table is that shewing the proportion of attacks in dogs in which normal and choleraic material were employed. The experiments appear to be sufficiently numerous to shew that choleraic material is more potent in its effects than solutions of normal evacuations.

The conclusions drawn from this table by the reporters are as follow:—

"It appears from these results that the dejections of persons suffering from cholera, and also those of persons in good health, when injected into the veins act in some cases as a poison—have the power of producing a definite effect on the intestinal mucous membrane resulting in a disorganization of its substance."

"The symptoms and pathological changes induced by both varieties of material, the choleraic and non-choleraic, present no differences; but so far as our experience goes, the proportion of cases in which this result is attained when choleraic fluids are employed is considerably larger than when non-choleraic material is used."

34. An important fact bearing on disinfection by heat is mentioned, *viz.*, that boiling the solutions before use did not diminish, if indeed it did not augment, their toxic effect, shewing at least that heat is no safe-guard. The reporters themselves say:—

"Therefore, until it be proved that living substances can withstand immersion in a fluid at a temperature of 212° F. of some minutes' duration, we have no hesitation in stating that the morbid phenomena which we have observed to follow the introduction into the animal economy of strained solutions of choleraic and normal alvine discharges, and of other decomposing animal substances, are not the result of injection with a material the poisonous properties of which are dependent on its possessing vitality."

35. Up to the present stage of the inquiry, the toxic effects of these matters have not been connected with the visible presence of any organization.

Search for bacteria in the fluid of mesenteric glands had the following results: 40 specimens were examined, and in 17 bacteria were present, but 10 of these 17 instances were in healthy dogs. Where organisms were present, "a certain interval of shorter or longer duration had "elapsed between death and the examination of the glands."

This time relation existed also in the appearance of bacteria on the mucous membranes and in other tissues, but "this condition, as in the previous cases, occurred without reference to the cause of death, no matter whether the animal had died owing to the introduction of organic fluids into the system, or had been killed whilst in perfect health."

36. The reporters have given in Part III of their report the results of 21 cases of section of the mesenteric nerves on the escape of fluid into the intestines, in continuation of previous experiments, as follows:—

"It will be seen that a copious secretion of fluid was the almost invariable result of section of the nerves, entirely independent of the detachment of the epithelial covering of the mucous membrane, but sometimes associated with the occurrence of an exudation of bioplasts upon its surface, and that the se-

cretion occurred as well in cases in which the division of the nerves was complete as when it was only partial."

No similar result was found to follow the section of the sphlanchnic nerves.

37. On reviewing the progress made in this important inquiry at the present date, although much has been added to our knowledge of the microscopic pathology of cholera, the efficient cause has hitherto eluded observation. Profound changes in the vital constitution of the blood have been discovered, mainly, as it appears, in the nature of marked departures *in degree* from conditions in themselves normal.

Important pathological changes have been produced in the intestine canal by injecting solutions of healthy and choleraic excreta into the veins of dogs, but these changes partook little of the phenomena of cholera.

The most marked of these phenomena has apparently been imitated or produced by lesions of the mesenteric nerves. The presence of bacteria and other organisms in the cases experimented on appear to have been due mainly to secondary *post mortem* influences.

38. In former memoranda the Commission, in communication with the Director General and the Professors at Netley Medical School, suggested certain directions in which the inquiry might be extended. After following the same course in the present case, we have agreed on the following points :—

(1.)—That the relation of ground water to cholera be finally decided.

(2.)—That, as the microscopic examination of air and water of localities, and of the blood and other fluids and organs of animals submitted to experiment, have led to certain definite results in a particular direction, which, if pursued, might throw light on the nature of the cause of cholera, we recommend that the observers should pursue their inquiries until they have satisfactorily made out the meaning of the peculiar phenomena of the blood, and of the poisonous effects of the dejections on animals, as recorded in their reports.

(3.)—But, in addition, we would suggest whether the time has not now come for extending the sphere of their observations by attempting to track outbreaks of cholera in special localities and to determine the reasons of its peculiar occasional localization and rapid spread in some cases.

Up to the present time, no report has been made shewing that a strictly scientific investigation had been carried out into the history of cholera such as was contemplated in the instructions drawn up by the Army Sanitary Commission, and this being the case, we are desirous of again calling attention to the points raised in these instructions, leaving the method of inquiry to Drs. Lewis and D. Cunningham themselves.

In conclusion, the Commission beg to express their approval of this report, and its tables and appendices, as affording a large amount of useful and suggestive information.

ARMY SANITARY COMMISSION:
WAR OFFICE,
*The 26th June* 1875.

J. J. FREDERICK,
*Secretary.*

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No. 6340—GENL. 144, DATED BANGALORE, 2ND NOVEMBER 1875.

ORDERED that copies of the foregoing be communicated to the Judicial Commissioner and Deputy Surgeon General, I. M. D., as well as all Executive Officers of the Administration.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, General Department, 2nd November* 1875.

From the Officiating Secretary to the Government of India, Home Department, To the Secretary to the Government of the Punjab, Sanitary, No. 390, Simla, the 15th October 1875.

I am directed to forward the accompanying despatch from Her Majesty's Secretary of State for India, No. 81 (Statistics and Commerce), dated 12th August 1875. with enclosed memorandum by the Army Sanitary Commission on the Punjab Sanitary Report for 1873.

2. The memorandum discusses some important sanitary questions and contains valuable suggestions well deserving of attention for improving the condition of towns and villages.

3. I am to enquire what steps His Honor the Lieutenant-Governor considers it desirable to take to carry out the suggestions made in paragraphs 3 and 4 of the despatch.

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No. 20—398.

Copy of the above letter and of its enclosures forwarded to the Chief Commissioner of Mysore and Coorg for information.

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From Her Majesty's Secretary of State for India, To the Government of India, No. 81, dated India Office, London, the 12th August 1875.

I forward for your information and for such action as may seem to your Government to be necessary a copy of a Memorandum by the Army Sanitary Commission on the Punjab Sanitary Report for 1873-74.

2. The Lieutenant-Governor has very properly pointed out in his Review of this Report that it is only by degrees that the returns of vital statistics can be rendered reliable and that it must be mainly through the exertions of the people themselves that important improvements in the rural districts are to be carried out. The action of the Government can in most cases go little beyond supplying the knowledge that shall indicate how improvement should be made and affording models of well ordered towns.

3. To lead to the results that are desired, continued inquiry will be necessary into the facts under which disease exists and under which it appears to be absent. In the districts the condition of which forms the substance of this Report, these last named considerations appear to be specially applicable to the results of irrigation on the health of the people. There is much reason to fear that the introduction of irrigation has in some districts led to serious evils, and wherever this is satisfactorily shewn to be the case it certainly becomes a plain duty to the Government to have all practicable steps taken to remedy them. But it is clear from the facts stated in this Report that there is still much to be learnt as to the precise circumstances under which bad consequences arise or do not arise, and to what extent disease is dependent on the application of irrigation to agriculture or springs from secondary causes connected with the insanitary condition of the villages and noxious water-supply. In this view it seems to be very desirable that some special effort should be made to obtain a reliable record of the results on the health of the people of the works which have recently been sanctioned for the improvement of the Western Jumna Canal, and I should be glad to hear that some means could be devised of accomplishing this. Possibly some part of the area to be improved might be selected and special means taken to secure a record of the statistics of disease and mortality for a sufficient period of time to test the result of the works of improvement.

4. It would likewise seem proper to consider whether any attempt could be made to test by actual trial the result of improving the local conditions as to drainage and water-supply of some of the villages in which the health of the people appears to have suffered most with a view to ascertaining how far such evils are within reach of practical remedies.

5. I desire to commend these suggestions to your consideration and that of the Punjab Government.

6. With reference to para 12 of the remarks of the Punjab Government which preface the Report and in continuation of my despatch of the 19th November 1874, No. 59, I enclose a copy of a note from Colonel Chesney explaining what action it is intended to take for extending the instruction in sanitary engineering at the Royal Engineering College.

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**Remarks of the Army Sanitary Commission on Report on the Sanitary Administration of the Punjab for the year 1873.**

In this Report Dr. De Renzy has included a large amount of information, at once practical and instructive, on the sanitary state of the Punjab, in continuation of his previous Reports, and he has illustrated the subject by reference to specific cases of considerable importance, affording examples from personal observation of ordinary disease causes more or less prevalent in India.

The report itself covers so large an area and contains so much useful practical suggestion, that it would be difficult to condense the facts within any reasonable limit and apparently the best way of dealing with its contents will be to shew from it the class of local disease causes which are of more ordinary occurrence and the remedies suggested for their removal, together with such passing remarks as may appear to be called for.

1. The first section of the Report is devoted to the vital statistics of the province. The main facts are carefully discussed, with the result that registration of deaths is improving in accuracy, although the death rate of 20 per 1,000 for 1873 when compared with the more correct death rates of cities and with the sanitary state of the country can scarcely be said to represent the mortality of the country generally.

2. In the following group of towns the registration is considered to be "really accurate," while the enormous mortality revealed by the returns shews what a great work of improvement has yet to be done for the population :—

| Towns. | Deaths per 1,000. |
|---|---|
| Faridabad ... ... ... ... ... | 93 |
| Biwari ... ... ... ... ... ... | 63 |
| Delhi ... ... ... ... ... ... | 55 |
| Faraknagar ... ... ... ... ... | 49 |
| Kasur ... ... ... ... ... ... | 49 |
| Sialkot ... ... ... ... ... ... | 48 |
| Amritsar ... ... ... ... .. ... | 47 |
| Jhelum ... ... .. ... .. ... | 47 |
| Bhera ... ... ... ... ... ... | 42 |
| Rawul Pindi ... ... ... ... ... | 41 |
| Peshwur ... ... ... ... ... ... | 40 |

The deaths in smaller towns and rural districts vary so much among themselves that they may rather be taken as indices of the deaths registered than of the real mortality.

Considered in this light, they shew improvement in registration.

3. The nature of the sanitary problem to be dealt with in these Punjab cities and towns will be easily seen by a comparison afforded by the British metropolis.

The most populous of them is Delhi, having under 112,000 inhabitants. The population of the metropolis is about 4,000,000. The ascertained death rates in the Punjab cities lie between 40 and 93 per 1,000. The metropolitan death rate averages 24·16 per 1,000. But if we go back to the 17th century, we find the death rate for 20 years (1660-79) in Southwark and in the city, within and without the walls, with their comparatively small population, lying between 70 and 80 per 1,000. One of the marvels of sanitary and engineering work is that four millions of people can live together and yet enjoy a high comparative degree of health. It would be a greater marvel if these Indian cities retained any thing like their present death rates after having passed through the hands of the sanitary officer and sanitary engineer. Like parts of the universe are inflexibly governed by the same laws. The experience of the metropolis of the empire is good for all its cities.

4. A difficulty, discussed by the Commission on other papers, in apportioning the mortality under its proper causes in different parts of India exists also in the Punjab. Difficulties in diagnosis are common everywhere, but especially where a humble class of agents have to be employed to do the work of registration, and hence the actual loss of life from the more important mitigable diseases cannot be ascertained with the required precision. All that can be done is to take the facts as they are represented to be.

5. The total mortality from cholera was only 148, occurring in 33 registration sub-divisions ; but as the rural circles of each district are all grouped together in the tables, the exact position of the disease

is not given. This point has several times been referred to by the Commission as one essential to a knowledge of cholera. It has been already shewn by inquiries in India that the law of exemption from attack is as important as the law of attack during cholera epidemics. Dr. De Renzy says truly that "what is required to be known is the exact locality where sickness prevails," and he proposes to have deaths classified by villages.

This is what should be done throughout India. It would enable the Commissioner to know the movement of cholera in time and space all over the district under his supervision. He could state the population of villages, the date of the attack in each village, the deaths to population, together with the villages and their populations which had escaped the disease.

Even with imperfect statistical data Dr. De Renzy has been able to confirm an observation made elsewhere in India, *viz.*, that with this low intensity as shewn by the small number of deaths, "in none of these districts did the disease evince a tendency to spread and the deaths attributed to it nowhere formed a regular succession of cases, but occurred at uncertain intervals, and as in the case of Lahore and Delhi districts, where at all numerous, were spread over a considerable interval of time."

It has been pointed out on previous papers that observations of this class have a very important bearing on practical measures against cholera and with this view attention was called to them in the instructions for the cholera inquiry. Up to the present time the facts go to shew that there is something besides the mere presence of cholera in a locality required to enable the disease to put on the appearance of spreading from person to person or, as Mr. Cornish (referring to Southern India) expresses it, there is a cholera which does not spread.* This much appears to be proved.

The number of deaths in the Punjab from cholera in 1873 was so small as not to call for special local inquiries and the facts stated by Dr. De Renzy shew that so far as the experience of 1873 enables us to judge the principle recently enunciated afresh that cholera does not travel faster than a man could travel has scarcely received support.

6. The registered fever mortality in 1873 was 219,909, and as the total registered mortality was 352,766, it would follow that out of every three deaths two arose from fever. But Dr. De Renzy adduces several important considerations connected with the topography and climate of the Punjab to shew that the registration of fevers is totally untrustworthy and he proposes that the column for fevers in the returns should be abolished and that fevers, together with diarrhœa, should be classed under "all other causes."

As this proposal may be fraught with very important consequences, it may be well to examine its bearings on public health questions. In the first place, if "fevers" were to disappear from the mortality tables, there would really be nothing left except the general death rate and occasional epidemics of cholera on which to rest sanitary improvement, and, making every allowance for inaccuracies in record, the great death cause in India would cease to appear on the tables. But we have reliable information regarding the comparative amount of fever among a class of natives in the Punjab, namely, the Regular and Irregular troops, which shews that fever is a very important death cause, although it also shews that the civil mortality from fever is greatly exaggerated in the process of registration.

In Dr. Bryden's vital statistics of Native troops serving in the Punjab for five years, 1865—69, the total deaths in hospital among these troops are given as 1,367 and the fever deaths at 329=24 per cent of the total deaths. Now assuming this proportion and no more as the *fever* disease mortality among the civil population, it would be quite sufficient to justify the introduction of sanitary measures. But as statistics from other districts of India have shewn that the approximate fever mortality differs greatly in different localities, it is clear that without a knowledge of local fever death rates it would be difficult to know where money should be spent. The topographical distribution of disease is in fact the real key to sanitary work. On the whole we would venture to suggest for consideration whether it would not be better to draw up some simple instruction for the diagnosis and registration of endemic and epidemic diseases, in the hope that this part of the service may improve together with the general registration, beginning with the eleven cities and towns already mentioned in which the general registration is considered to have been "really accurate." The total deaths in these towns amounted to 21,387, of which no fewer than 9,884, above 46 per cent, are set down in the tables as due to "fevers." It would hence be a great step in advance to place the registration of death causes on a proper footing in these instances.

Assuming the 24 per cent of fever deaths to total deaths among Native troops as a foundation for practical action among the civil population, instead of 62 per cent, the actual proportion registered, we should still have nearly 85,000 fever deaths to account for and to deal with almost the whole of which are of malarial origin.

*Report on Madras Presidency, 1873.

7. The only effectual mode of dealing with malarial fevers is to remove the cause or to remove the people from the cause. All the information we have hitherto had about the cause of malarial fevers from India shews their connexion with damp unwholesome ground, the only remedies for which lie in drainage and improved agriculture. No other remedies are pointed out in the present Report; nevertheless the beneficial influence of drainage is called in question by Dr. De Renzy on the ground of dryness of climate and of the apparently small amount of moisture in the subsoil, as evidenced in the case of Meean Meer, where it amounted to 6 per cent of the weight of the soil at a depth of 5 feet below the surface, the argument of course being that subsoil drainage is not one of the remedies needed.

As this proposition involves a very important part of Indian sanitary work, it is necessary to say a few words about it, and first as regards Meean Meer.

Referring to this Commission, Dr. De Renzy says: "The Commission even think that in order to cure Meean Meer of its feverishness, subsoil drainage is urgently needed." So far as we know, the only reference made by the Commission to the drainage of Meean Meer does not touch the question of malarial fever.

It occurs in a memorandum on a Report by Dr. Sheppard on the water sources of this station in which he had shewn that the whole area had been rendered unwholesome by bad conservancy arrangements in past times, and on this point the following remark is made: "The next improvement required is cleansing the surface soil of the station by subsoil draining the area *so that the rainfall may wash out the impurities due to bad conservancy*"—a quite different proposition to advising subsoil drainage for reducing malaria.

The Commission has never seen its way to any general introduction of subsoil drainage into India. It has been advised locally by way of experiment. Improvement in the drainage of a country like India must accompany improved agriculture. With local malaria clearly traceable to bad drainage or irrigation works, the case is different; and Dr. De Renzy himself has described the very cases in which local drainage by some of the various methods in use would in all probability be of great service. These cases are small towns and villages on low ground or with low ground in their vicinity liable to infiltration of water from canals, tanks and higher levels or in which the rainfall, scanty as it may be, causes decided rise in the subsoil water level, thereby bringing it too near the surface. It is true that in most, if not in all, such instances there are other very important disease causes in operation, namely, excessive filth, bad water, and the like, which raise the death rate extravagantly high for small country populations. But the exact influence of wet subsoil will never be known if the proposal is entertained of classing all fever deaths under the head of "all other causes" as Dr. De Renzy proposes. What is wanted is not a synthesis of this kind, but a true analysis of the disease and death causes, which is a necessary step to economical improvement and the recognition of this principle, already laid down by the Commission, that the most important disease causes to be dealt with by purely sanitary proceedings are not so much those connected with the country as a whole as those of a local character.

The value of Dr. De Renzy's Report consists, as already stated, in the large amount of real practical information which it gives on these local sanitary questions.

8. For example, the sanitary condition of an ancient town, *Bahadurgarh*, is described as follows: A large number of houses of a good class falling to ruin and large tracts of enclosure desolate. Town surrounded on all sides by immense holes, some receiving the waters of the Sabi, others the town drainage. Situation appears to be very low; wells inside town all saline, not drinkable; wells outside mostly holes, some supplied by town drainage. Water level in wells, 22 feet, rising to 14 feet from the surface in rains; soil, light porous sand. Water from wells swarms with animalcules, which have to be strained out before use. Excessive sickness. Death rate, 1873, was 76 per 1,000. Nearly 49 per cent of the deaths in this town were registered as due to fevers.

*Karnál.*—Natural drainage within town limits excellent, but no escape for drainage, after it passes town gates. Western Jumna Canal line obstructs drainage so that vast ponds of water and swamps of immense extent are seen on the south of the town. There are 12,000 head of cattle stabled in the town every night. People collect the manure and offal for fields. Wells recently cleared out. Amount of filth removed appears to have been enormous. From one well were removed quantities of bones, talwars, matchlocks, spears and other weapons. Registration returns "obviously untrustworthy." In this town about half the registered deaths were from fevers.

*Muhmudpur.*—"A branch of the Western Jumna Canal flows within 200 yards or so of the town and above the surface of the ground. The spring level which used formerly to be more than 60 feet from the

surface is now only 2 feet. The effect of this state of things may be easily imagined." Wells are in ground saturated with filth. Water of course "abominably impure." One well is close to a ditch which serves as a receptacle for the fluid filth of the village.

*Panipat.*—Of this town it is stated that there are no drains to convey away the town sewage from the gates "nor if there were any would they be of much use for many months of the year during which the ground in the vicinity is flooded." The cause of this occurrence is alleged to be defects in the canal by which the surrounding country "is converted into a huge swamp."

In this town Dr. De Renzy states that the registration is well carried out and the tables shew that out of a population of 25,276 there were 1,100 deaths in 1873, of which no fewer than 539 were registered as due to fevers.

The Musalman village *Gaonchi* is said to have "suffered fearfully from sickness. The site being very low, the village and the adjacent lands were flooded to a wide extent." In one well outside the town the water level was only 6 feet below the surface.

9. These illustrations are sufficient to shew the nature of local drainage problems as distinguished from those connected with the general drainage of the country, and there is every reason to believe that similar conditions exist to a greater or less extent in most lowlying fever-stricken villages and towns. But a moment's consideration is sufficient to shew that it is not at all necessary in dealing with these local defects in surface and subsoil drainage to discuss whether the entire agricultural drainage of the country be required or not.

10. The general principles on which local drainage should be carried out are laid down in the suggestions of this Commission for the sanitary improvement of Indian stations, but it may be well to introduce a few words on the general question also. It is no test that a station or district is not liable to suffer from local malaria that during dry weather the water level is at some distance from the surface or that the soil contains an apparently small amount of moisture.

A far better test is the state of the surface and subsoil during the rains. At many stations to which the subsoil water test if used in dry weather would scarcely indicate danger, the surface may be so saturated during the rains that raised pathways are required for access to the barrack buildings. It could scarcely be inferred from a casual inspection of Roorkee, for example, that men had sometimes to wade up to the knees in water between the buildings, as stated in the Report of Dr. Cuningham on the cholera of 1872.

11. Those sanitary defects in villages to which the Sanitary Commissioner has called attention are generally the same as those revealed in other reports from the North of India, namely, unhealthy construction and arrangement of villages, bad house accommodation, excessive filth and bad water. The influence of local conditions of this class on the prevalence of fevers is well known and we have seen, as Dr. De Renzy himself has shewn, that in a considerable proportion of cases wet subsoil must be added to these conditions. Such being the case, the commission must differ from Dr. De Renzy's conclusion on this matter, which is stated as follows: "As regards the question of subsoil drainage, I do not know of a single locality in which works of that nature are required in the plains of the Punjab." Probably there is a misunderstanding as to the terms used. Taking the evidence as it exists in Dr. De Renzy's present Report, there are numerous instances given of damp and even waterlogged subsoils, from which excess of moisture must be removed before the localities where these disease causes present themselves can be improved in health. But it is quite true, as urged by him, that in villages wells must also be removed from the vicinity of holes which receive the village drainage; holes must be filled up, and cleanliness and surface drainage enforced.

12. Before leaving the subject of fevers attention may be called to facts adduced by Dr. De Renzy which render it highly probable that typhoid fever must henceforth be classed as a cause of mortality among Natives of India.

The class of causes recognized in England as existing in localities where typhoid fever shews itself and which have led to its being designated "filth fever" are present in an intense degree in many localities in India, but as the disease had probably been considered as a "malarious remittent fever" there was no direct evidence of its presence as a special death cause. Hence Dr. Bryden might have been perfectly justified in saying: "I know of no single record of the existence of typhoid among the native population." In the Appendix to the present Report Surgeon-Major J. R. Johnson, of the 5th Goorkha Regiment, gives details of three fatal cases of the disease in his regiment. Similar occurrences have

been reported from other parts of India, and Dr. De Renzy hazards "the assumption as not unwarranted ..... that a very small percentage of native children escape typhoid in infancy."

Besides its purely professional interest, the occurrence of typhoid as a fever death cause in native communities has an obviously important bearing on sanitary work—not only among the civil population but among the troops, for there is a growing conviction that the appearance of typhoid among men occupying healthy barracks may after all be due to the presence of causes of typhoid in bazaars and other places to which they resort.

So far as concerns the troops the practical conclusion from facts of this class is the conclusion, so frequently urged in times past by the Commission, that rigid attention should be given to the sanitary improvement of bazaars and Native towns in the vicinity of stations.

It is besides just possible that further investigations into the subject in India might transfer a considerable number of cases from the column of remittent fever to that of typhoid. There is perhaps a closer relation between the etiology and pathology of these forms of fever than is generally suspected, and hence much of the excessive fever death rate in native towns and villages may be really due to enteric febrile diseases the local causes of which admit of more ready removal than the causes of malaria affecting large districts of country. This view apparently receives confirmation from the large mortality registered as due to bowel complaints. In 1872 there were 23,345 deaths returned from these affections.

13. Small-pox was the cause of 25,699 deaths in 1873. There has been a continuous fall in the death rate from this disease since 1869 in which year there were 53,195 deaths. Vaccination is becoming more efficient and in the midst of much discouragement from other districts in India it may be well to quote Dr. De Renzy's remark that "Simla is the only district in which the disease fails in its attack." There have been only 15 small-pox deaths in Simla in five years. Simla is however the head-quarters of the Punjab Vaccination establishment; the disfigurements and disablements, so common a result of small-pox in the plains, are, thanks to vaccination, as uncommon among the juvenile population of the Simla hills as they are in England.

14. The Indian death registration is gradually bringing to light facts regarding the distribution of disease of great importance to the application of preventive measures: for instance, tables in the present Report shew that, out of 188 registration districts and towns in which the circles are grouped together, only 36 escaped small-pox in 1873. Had the records included villages or circles, the information afforded would have been very important.

During the same year not a single district or town escaped, and in comparing the distribution of cholera deaths with those from small-pox and fever we find that cholera deaths were registered in 33 districts and towns only out of 188.

15. The following remarks on one point in the history of small-pox made by Dr. De Renzy deserve to be quoted on account of their importance. He says: "Considering how contagious small-pox is, it is remarkable how frequently it happened that of two adjacent cities between which there was extensive traffic one suffered most severely from the disease, while the other escaped entirely or almost entirely. Amritsar and Lahore illustrate this statement. In the former city there were 538 deaths from small-pox, while in the latter there were 12 only, and these were scattered over a period of three months. Nor was Lahore threatened on the side only of Amritsar, for Kasur, a town still nearer, suffered severely; and other similar cases might be adduced. It was not better vaccination that saved Lahore, for there are few large towns in which the inhabitants have shewn themselves more averse to vaccination."

Similar facts have been observed elsewhere, but India is affording illustrations of the laws of epidemic diseases on so large a scale that we may hope for increase of our knowledge from careful inquiry there. Dr. De Renzy's view is "that contagion of small-pox may be present without generating small-pox" and that "some other conditions are required for its propagation." Whether this view be correct or not the fact is incontestable and is true of all epidemics.

It has been observed not only as between towns but as existing between districts, streets and even parts of streets of the same town and at the same time. It appears to point to the *temporary* influence of locality as a practical element in applying sanitary measures.

16. Accidental deaths from ordinary causes amounted to 3,017, of which no fewer than 1,606 were due to drowning, most of them in all probability in unprotected wells and tanks; 870 persons were killed by falling trees, houses, rocks, &c. Besides accidental deaths, 967 died from the effects of snake-bites.

The facts speak for themselves and point to the remedies. The total number of deaths caused by animals amounted to 1,144.

The large mortality from snake-bites calls for a few remarks. A short time ago Dr. Fayrer's work on the Thanatophidia of India was sent to many chief Indian stations for the express purpose of affording sufficient information to enable poisonous snakes to be easily recognized and with the view to aid in their destruction, which is the only real measure of prevention applicable to this death cause. The reward for bringing in a dead poisonous snake is only 3*d.*, which it is suggested is too small a sum for which a man might be willing to risk his life in the capture. It may be further suggested whether the reward might not be increased to half a rupee or to a rupee for the more dangerous kinds, and whether in this way the mortality might not be diminished.

Simple instructions for managing persons bitten might also be circulated with advantage.

17. It may be useful to cite a few examples from among towns having the highest death rates to shew the nature of prevalent local disease causes.

*Faridabad.*—Death rate, 1873=93 per 1,000 from all causes, of which 50·19 per 1,000 were from fever.

Site of town "very bad," on the edge of a drainage line; on account of heavy rain in August "a great portion of the town was under water several feet." Mud huts of the poorest description greatly crowded; narrow passages through which two persons could not walk abreast; town filthy; were it not for the scavenging work of pigs, "Faridabad, like many other native towns, would be uninhabitable from stench." Water obtained from wells close to cesspits.

*Rewari.*—Death rate, 1873=63 per 1,000 from all causes. Of these 14·04 were from fevers and 21·51 from bowel complaints. Town suffered from a flood in August 1873. In some parts water stood 9 feet deep; a vast number of poor houses washed down. A large proportion of houses were mud hovels. Water-supply "very bad." Saline matters found in the excreta of men, and animals have largely polluted the well water by draining through the subsoil. Town well swept.

*Faraknagar.*—Death rate, 1873=49 per 1,000, of which 17·40 were due to fevers and 10·35 to bowel complaints. Site flat; town clean. Numerous wells inside the city; water so saline that all who can afford to have good water have it conveyed half a mile. Spring level only 12 feet below the surface. Soil sandy and porous. Large cesspits among the houses, leaking largely in most cases. A large well-like tank formed in the subsoil water used for bathing and washing clothes. "Subsoil water polluted wholesale."

*Delhi.*—Death rate, 1873=55 per 1,000; fever death rate=25·29 per 1,000. Much is being done to improve this large city, but in addition to structural alterations, the chief disease causes requiring removal appear to be an old and very bad system of sewerage and unwholesome water-supply. Both of these subjects were under consideration and improvement plans had been proposed.

*Peshawur.*—Death rate, 1873=40 per 1,000, of which 17·40 per 1,000 were due to fevers. This city has been undergoing considerable improvement in its surface cleansing and surface drainage. But no proper system for sewering and draining the city has been carried out. Superficial drains have been formed, which have facilitated the cleansing, and the sewage "being inconsiderable" in amount is finally passed into the subsoil, 200 yards from the city walls at the subsoil water level—a measure which Dr. De Renzy says "can hardly fail to prove dangerous in the highest degree to the health of the city. The works," he says, "have been immensely costly. The sum already spent on them falls little short of what sufficed to provide Carlisle, a city of about the same population and larger area, with a complete system of self-cleansing sewers."

The sewers were already requiring repairs and holes had formed in the bottom, through which the sewage was escaping into the subsoil, and besides all this, these works "involve a heavy permanent charge for conservancy."

The condition of the water-supply remains as it was. The only additional information we have about it is that after it had been condemned time after time and the necessity for improving the supply had been recognized after local examination by the late Governor General and Lieutenant-Governor, two Government officials, without any apparent reason, had arrived at the conclusion that no improved water-supply was required.

The works are however in progress, and although not being carried out so rapidly as might be desired, they will it may be hoped before long give an effective practical answer to objectors.

18. Under the head of "Sanitary Progress" Dr. De Renzy states generally the nature of measures required for Punjab towns and the defects against which they should be directed. He says: "There is hardly a large town in the province whose water-supply does not furnish the most unmistakable evidence of being largely contaminated with sewage. There are open sewers which carry away a portion of the fluid refuse, but most of even the fluid refuse sinks from generation to generation into the soil on which the people live."

In the dry bright climate of the Punjab and in dry weather "the streets of the large towns are not very offensive to the sense of smell. It is otherwise however on the occasions when the air is at all damp and rain has recently fallen, and it is impossible for any one not hardened by habit to endure foul smells to go into the back streets of cities like Delhi, Lahore, Amritsar and Ludiana without experiencing a sense of depressing and sickening nausea."

For such defects as these the only remedies at present are supplied by hand labor. "All the great cities and even the military stations still depend on the fetching and carrying system."

"Works of water-supply and sewerage are the great wants of the Punjab towns," and without them Dr. De Renzy says "it is idle to hope for any serious reduction in the pestilential death rates of the larger towns."

19. A list of 22 towns is given in which minor works have been carried out. These include improvements in wells, paving, filling up holes, tree planting, surface drainage, &c.; but works of this class, although necessary and all the more so on account of the absence of sanitary engineering works, cannot act as substitutes for these.

Many of the minor works appear to be carried out on wrong principles. For example, surface drainage, which, as its name implies, ought to be limited to securing a smooth, well formed, hard and easily cleansed surface with shallow saucer-shaped, impervious surface channels, is made to include deep uncovered drains which are nothing more than open drain trenches without the drain pipes. Surely works of this class are useless for any purposes of health and hence they involve a useless and extravagant waste of money, unless town drainage works are carried out in strict conformity with the requirements of sanitary engineering, which include a sufficient supply of water drainage purposes, it is better to trust simply to surface drainage work, such as that mentioned above, and to rigid attention to cleansing the surface and to protecting the subsoil from pollution by abolishing cesspits and water-holes and keeping impurities out of wells. Proceedings of this class involve strict sanitary discipline and work without regard to cost, but there is no alternative where the "fetching and carrying system is trusted to."

20. The great difficulty in the planning and execution of sanitary works for Indian cities is the one frequently pointed out by the Commission and more than once dwelt on by Dr. De Renzy, namely, the want of skilled engineering advice in this special department. It is this deficiency more than the outlay attendant on the execution of sanitary works which stops the way. The case of Peshwar already mentioned is an illustration in point, and as a general principle it may be safely taken for granted that "fetching and carrying," even with the low labor rates in India, if properly carried out, will cost more than sanitary engineering works, provided such works are planned as they ought to be in accordance with the special requirements of India.* Our suggestions for the sanitary improvement of Indian stations may be referred to for the general principles to be kept in view in such plans, and also the minutes on town drainage prepared by the General Board of Health, which Dr. De Renzy is desirous of bringing to the notice of the authorities.† The general principles are also embodied in Mr. Chadwick's paper on the Cawnpore drainage plans, which is reprinted at the end of Dr. De Renzy's Report.

21. It is with much satisfaction that the Commission learns from the Government letter prefixed to this Report that "in regard to projects both of water-supply and drainage a difficulty arises in this province from the impossibility of obtaining officers in the Public Works Department practically acquainted with this special branch of engineering," and the Lieutenant-Governor goes on to say that "he will accordingly submit for the consideration of higher authority whether the special study of town drainage and water-supply" can advantageously "be included in the course of professional instruction followed in the College of Cooper's Hill."

This proposal merits every consideration so far as the future training of officers is concerned, but it may be suggested that immediate advantage would arise from adopting a proposal frequently put forward by this Commission, namely, to obtain the services of a qualified Sanitary Engineer to assist the municipalities with his advice in works of this class. Such a course would help to prevent costly mistakes for the present and the proposed training of Engineers for service in India, which is no new proposal, if carried out would ensure the introduction of sanitary engineering into the Public Works Department in time to come.

* But manual labor is the only resource, even for large groups of population, until water and drainage are provided.

† Copies of all these documents prepared by the General Board of Health were sent by the Army Sanitary Commission to India many years ago.

22. The other great difficulty in sanitary work, namely, cheap materials, will it is hoped be soon overcome, for Dr. De Renzy states that Dr. Henderson, with the assistance of Messrs. Ledger and Hilton, had succeeded in the manufacture of glazed piping in Lahore Central Jail. The pipes were 7 inches in diameter, made in two feet lengths and joined together with Portland cement so as to form a length of 100 feet, and this pipe bore a pressure of 80 lbs. on the square inch.

But this affords no test of what such pipes would bear if subjected to a sudden shock by stopping the flow of water in them. Earthenware pipes are suitable for water conduits when both ends are always open. They have been tried to bear pressure and shocks both in England and France, but have been given up for iron pipes. It has been also stated that glazed earthenware pipes have been made in the way of manufacture elsewhere in India. To all appearance therefore the possibility of supplying Indian cities with cheap drain pipes is approaching a solution, and let us hope that there will be no future example of such drainage works as Dr. De Renzy describes at Ludiana which is, he is sorry to say, "the creation of the British Government and must have cost a very large sum of money." He further adds: "So far from being a benefit to the community, I believe it would be no exaggeration to say that it is a curse to the town."

Experience such as this has led some persons to doubt the applicability of sanitary engineering works for Indian cities. It has not been without its parallel in some sense at home. But it is quite certain that in some important points there has been either absence of knowledge or neglect of engineering principles, which after all are only skilled adaptations of natural laws to human requirements and we know that the operation of these laws can always be depended on. Hence the failure lies with those who apply them without due care.

23. A table is introduced at the end of the Report giving the income and expenditure of 50 municipalities in the Punjab, from which the following summary has been taken :—

| | Rs. |
|---|---|
| Total assets ... ... ... ... | 18,99,325 |
| Expended for— | |
| Conservancy ... ... ... ... | 2,08,205 |
| Roads, bridges and streets ... ... ... | 2,17,791 |
| Drainage or sewerage ... ... ... | 1,37,173 |
| Water-supply, tanks, wells, &c. ... ... ... | 45,832 |
| Construction and repairs of latrines ... ... | 22,200 |
| Total Sanitary Expenditure..... | 6,32,201 |

It hence appears that out of an income of 189,932*l.*, the total amount expended for strictly sanitary work was 63,220*l.* The other items of outlay included vaccination, dispensaries, police, schools and miscellaneous items. But a very considerable amount (48,679*l.*) was not spent.

All things considered the work is progressing in towns and we hope that Dr. De Renzy's excellent Report will give a better direction to some part of it.

24. There is one point however which might possibly be re-considered with advantage—and that is the sanitary improvement of villages in regard to which Dr. De Renzy considers that little can be done at present—an opinion in which the Lieutenant-Governor concurs. It is quite true that in these small populations the work of improvement must be mainly done by the people themselves and that Government can assist the work by useful examples and illustrations of improved towns and villages and also by diffusing information on sanitary subjects, which as it appears has been already done to some extent with advantage; but as experience is gained it may be well to advance further in the direction described in Dr. Abbott's Report on the Ceded Districts, from which the Commission learned with satisfaction that kindly and intelligent interest displayed by local Officers had led to striking improvements.

This experience is all the more important because the solution of the public health problem in India, especially as regards epidemics, appears to lie mainly in the sanitary improvement of the agricultural population.

ARMY SANITARY COMMISSION;
WAR OFFICE,
*The 9th June* 1875.

J. J. FREDERICK,
*Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, General Department, 2nd November* 1875.

Demi-official from Col. G. Chesney, Principal, Cooper's Hill College, To W. T. Thornton, Esq., Secretary, P. W. D. India Office, dated Surrey, the 2nd July 1875.

With regard to the enquiry you make as to what steps it is proposed to take for giving the students of this College more instruction on sanitary engineering, I beg to state that the following arrangements appear to be suitable for the purpose in question :—

1st.—Professor Unwin will somewhat extend the course of instruction already given in the engineering of town drainage and water-supply, carrying the subject to a point which will enable every student to be fairly acquainted with this branch of engineering generally ;

2nd.—To continue the practice which has been hitherto carried out of making tours to inspect some good examples of the construction of water-works ; and also—

3rd.—To have instruction given by some expert in sanitary engineering and hygiene. This can I believe be done without additional expenditure out of the grant already provided for lecturers beginning next session ; and—

4th.—To arrange for one or more students being placed each year under a Sanitary Engineer for their practical course, so that each batch of young Engineers going out may contain a proportion who have had special instruction in this branch of the profession.

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No. 6326—Genl. 143, dated Bangalore, 2nd November 1875.

Ordered, that copies of the foregoing be communicated to all Officers of the Administration, for attention.

T. CLARKE,
*Offg Secretary.*

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From the Commissioner of the Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, No. G. 157, dated Bangalore, 28th July 1875.

With reference to para 6 of the Officiating Chief Commissioner's Order No. 9069—G. 1963 of the 12th March 1875, and the reference to the same in the concluding para of Mr. Dalyell's Order No. 2659—G. 109 of the 26th ultimo, I have the honor to state that the first order was received during my absence on leave, and on my return I found that Mr. Ricketts had been in correspondence with the other Divisional Commissioners on the subject of the transfer of Garudachari to another Division, and one answer did not come till after my return.

2. I find that neither of the other Commissioners are desirous of parting with their Treasurers, and that Mr. Ricketts is so desirous of retaining Garudachari that he has forwaded me the enclosed representation for favorable consideration, which I beg to enclose in original for Mr. Dalyell's perusal.

3. I should have transferred Garudachari to one of the other Districts of this Division but for the following reasons : 1*stly.*—It is clear, that Mr. Gordon did not attach much blame to him in the case, or contemplate a reduction of his pay as he merely ordered his transfer, and as the Offg. Chief Commissioner will see from para 5 of my letter of the 28th of last November, I thought his participation in the general negligence not proved, for as he does not know English, it was the Head Accountant's duty to make him acquainted with any order which bore upon his particular work : 2*ndly.*—I did not like to send him to Kolar, as objection might be raised on account of Mr. Krishnaiengar, the Deputy Commissioner, being his younger brother, and 3*rdly.*—The pay of the other District Treasurers being inferior to that which he receives, and being in a manner the Division Treasurer I could not send him to Túmkúr without a loss of status which would have been a far greater punishment than Mr. Gordon intended, and the Túmkúr Treasurer is moreover neither of that character, influence or position which would justify his promotion.

4. I should be glad if Mr. Dalyell could modify the order so as to leave Garudachari in his present position ; the only drawback in his case is, that he does not know English which sometimes places him at a disadvantage, but I have known him for many years and he is just the man for this important Treasury. He is above suspicion ; in fact I have never heard a word against him, and from his family connections and the fact that he is a wealthy man independent of Government employ, he commands respect, and any mark of displeasure short of his removal would I think be an advantage far more than the reverse.

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## *Proceedings of the Chief Commissioner of Mysore, General Department, 3rd November* 1875.

From the Deputy Accountant General in Mysore, To the Offg. Secretary to the Chief Commissioner, General Department, No. 3127, dated Bangalore, 28th September 1875.

In continuation of my No. 1485 of the 25th June last, I have the honor to forward copies of a docket No. 94 of the 23rd instant, from the Commissioner, Nundydroog Division, and its enclosure, for the Chief Commissioner's orders on the proposal made therein to write off the net irrecoverable sum of Rs. 157 due from the sureties of the absconded stamp vendor Raghavendrappa, on the consideration that the commission that would have been payable on the amount realized would have exceeded that amount.

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From the Commissioner, Nundydroog Division, To the Deputy Accountant General in Mysore, No. 94, dated 23rd September 1875.

Has the honor to forward for information and submission to the Chief Commissioner, the accompanying copy of letter No. 469 of the 13th instant from the Treasury Officer of the Bangalore District, reporting the amount recovered on account of absconded stamp vendors' liabilities, and to state that the collection has been effected in a far more satisfactory manner than could at first have been anticipated.

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From the Treasury Officer, Bangalore District, To the Commissioner, Nundydroog Division, No. 469, dated 13th September 1875.

I have the honor to report regarding the recovery of absconded stamp vendors' liabilities in accordance with the requisition contained in para 6 of Chief Commissioner's Order No. 9069—1963, dated 12th March 1875.

2. These liabilities amounted to Rs. 9,282—8—0 as shewn in the margin. Of them Rs. 9,125—8—0 have been recovered and Rs. 157 have to be considered irrecoverable. The latter amount forms part of Raghavendrappa's liabilities and is due to insufficiency of one of his securities.

| | | | |
|---|---|---|---|
| Srinivas Rao ... | ... | 6,539 | 9 0 |
| Raghavendrappa | ... | 1,954 | 2 0 |
| Subbanna ... | ... | 738 | 13 0 |
| Total..... | | 9,282 | 8 0 |

3. If the vendors had not absconded but remitted the sale proceeds of stamps in due course, Government would have had to pay a commission of 2 per cent on Rs. 9,084—1—0 or Rs. 181—10—10. As the irrecoverable amount is less than this figure, Government may be considered to have practically sustained no pecuniary loss.

4. There is yet some amount which it is possible may accrue to Government on account of rents, &c., due for the lands of one of the sureties for the time during which the same were under attachment. But this which is not likely to exceed Rs. 40 and which is under reference to the taluk, has not been included in the figures above set forth.

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No. 6389—Genl. 220, dated Bangalore, 3rd November 1875.

Order thereon.—Under the circumstances stated by Colonel Pearse, as to the practical difficulties attending the transfer of Garudachari, the Offg. Chief Commissioner will not insist upon the immediate removal of the Treasurer from the post he now occupies.

2. The Offg. Chief Commissioner cannot however alter the opinion as to Garudachari's conduct which was expressed in para 3 of Proceedings No. 2659—Genl. 109, dated 26th June last, and with reference to the subject of the Commissioner's No. 94, dated 23rd September last, to the address of the Deputy Accountant General, directs that the sum reported to be irrecoverable from the sureties of the defaulting stamp vendors be paid by the District Treasurer.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, General Department, 4th November* 1875.

From the Inspector General of Police in Mysore, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, General No. 2496—1031, dated Bangalore, 20th October 1875.

I have the honor to enclose herewith (in original to be kindly returned) letters as per margin, from the Commissioner of Ashtagram and Deputy Commissioner, Mysore, proposing that the Town Police of Seringapatam be incorporated with the Taluk Police, and with reference to my letter No. 1235—516 of 25th May last, I beg to recommend the measure.

Letter No. 804, dated 18th September 1875, from Commissioner, Ashtagram.
Copy Do No. 801, dated 11th August 1875, from Deputy Commissioner, Mysore.

2. The question mooted in regard to payment of pensions or gratuities can, I presume, be dealt with under the Civil Pension Code, the charge being borne proportionately to the period of service passed in the Municipal or District Police.

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From the Commissioner, Ashtagram Division, To the Deputy Inspector General of Police, No. 804, dated Mysore, 18th September 1875.

In forwarding copy of letter No. 801, dated 11th August 1875, from the Deputy Commissioner of Mysore, I have the honor to state that in my opinion the Town Police of Seringapatam, which at present consists of 36 men and a Jamadar, may with advantage be incorporated with the Taluk Police and placed under the immediate orders and supervision of the Taluk Inspector as suggested by the Deputy Commissioner.

The only difficulty that occurs to me is whether pensions and gratuities should be paid entirely from the Municipal funds or partly from Municipal and partly from the Imperial funds, and this should be definitely settled.

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From the Deputy Commissioner, Mysore District, To the Commissioner, Ashtagram Division, No. 801, dated Mysore, 11th August 1875.

Adverting to the Proceedings of the Chief Commissioner, No. 2276 of the 15th June, I have the honor to suggest that sanction may also be obtained for the Town Police of Seringapatam, the strength of which is marginally noted, being incorporated with the Taluk Police, to admit of their being placed under the Taluk Inspector, and being transferred into the Taluk as occasion may require.

1 Jamadar.
1 1st class Daffedar.
1 2nd do
2 Lance do
16 1st class peons.
16 2nd do

2. Their pay and equipment will be met from Municipal funds as hitherto. The only difficulty will be in the arrangement of pensions and gratuities for such men; but confusion may be avoided if care is taken in the preparation of service registers, and if orders are given that men should not be changed oftener than once a year.

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No. 6398—Genl. 1286, dated Bangalore, 4th November 1875.

Order thereon.—Assuming that the rates of pay of the Town Police of Seringapatam are similar to those granted to the District Police, the Officiating Chief Commissioner approves of the proposal, and directs that it be carried into effect.

2. The Commissioner of Ashtagram is referred to the orders passed by the Chief Commissioner in para 10 of his Proceedings No. 5090—84 of the 13th October 1874, regarding the payment of gratuities and pensions to Police men when discharged.

T. CLARKE,
*Offg. Secretary.*

*Proceedings of the Chief Commissioner of Mysore, General Department, 4th November 1875.*

No. 6401—Genl. 135, dated Bangalore, 4th November 1875.

Order.—The accompanying petition dated _____ from Narasimhabharatiswami of the Kúdli Matt is forwarded for report to the Commissioner of the Nagar Division, who is at the same time requested to explain why the appointment of the petitioner as the Guru of the Matt was not reported to this Office, although it is stated to have come to the notice of the Deputy Commissioner of the Shimoga District in which the Matt is situated.

2. Successions to Matts enjoying State grants, or transfers from one Guru to another of Matts and inams attached to them, should be duly communicated to this Office, and the Chief Commissioner's orders obtained thereon.

T. CLARKE,
*Offg. Secretary.*

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From the Commissioner, Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, Genl. No. 274, dated 13th October 1875.

Has the honor to request the Secretary to move the Chief Commissioner to introduce the Rules prescribed under Section XXXV of Bombay Act I of 1865, into all the settled taluks in this Division, as applications have been received for permission to apply land to purposes unconnected with agriculture.

2. The undersigned considers that the imposition of a penalty of 20 times the fixed assessment, in addition to the annual assessment, is suitable in all cases, except those specified in Notification No. 268 of the 17th November 1870.

3. The Rule is published under Notification No. 267 of the 14th November 1870.

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No. 6407—Genl. 221, dated Bangalore, 4th November 1875.

Order thereon.—The Offg. Chief Commissioner observes that on a similar reference to the above made by the Commissioner of Nagar, Sir Richard Meade ruled that it was not desirable at present to extend the operation of Section XXXV of the Survey Act and the rules based thereon, beyond the suburbs of Bangalore to which the Chief Commissioner's Notification No. 268 of 17th November 1870 specifically refers. Where lands outside those limits are wanted for purposes other than cultivation, the application should be dealt with according to the circumstances in each case, a penalty being imposed only where such course becomes necessary in order to check operations on the land of an injurious character.

T. CLARKE,
*Offg. Secretary.*

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## *Proceedings of the Chief Commissioner of Mysore, General Department, 5th November* 1875.

Read—

Memorial addressed by B. Tirumalachar, late Judicial Sheristadar of the Mysore District, to the Viceroy of India, appealing against the order of degradation passed by the then Officiating Chief Commissioner in Proceedings No. 9248—Judicial 159, dated 19th March 1875.

Read again—

Petition from B. Tirumalachar on the same subject, addressed to the Officiating Chief Commissioner.

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No. 6456—GENL. 1301, DATED BANGALORE, 5TH NOVEMBER 1875.

ORDER.—After a further consideration of the orders passed on Tirumalachar's petition, and having called for and perused the whole of the proceedings in this case, the Officiating Chief Commissioner is constrained to observe that whatever may have been the nature and degree of the petitioner's connivance in the irregularities which are shewn to have occurred in connection with the sale of the sarvamanyam villages in question, there is no actual proof of his complicity in them. The fraudulent character of the sale is deduced principally from the inadequate and misleading terms of the sale notification, but the evidence given before the Judicial Assistant Commissioner did not elicit any proof of Tirumalachar having had any concern in its preparation. The person responsible for the defects in the notification was undoubtedly the then Court Sheristadar, Narsimmaiengar, who, in consideration of his previous good character as well as of his incompetency for the position he occupied in the office, has been merely censured.

The opinion submitted by the Commissioner as to the character borne by Tirumalachar and the influence he was able to exercise in the Deputy Commissioner's Office, has apparently formed the grounds upon which mainly the punishment of degradation has been passed upon the petitioner, and although the Officiating Chief Commissioner attaches much weight to that opinion, he is led from a perusal of the papers before him to believe that, had Tirumalachar been under due control, the ability which he is admitted to possess could not have been misused.

Under these circumstances, Mr. Dalyell desires that Tirumalachar may be permitted another opportunity of retrieving his character, and will, with this object, withdraw the prohibition that has been placed upon his re-employment in the Judicial Department, and allow his restoration to a post of equivalent grade to that from which he was reduced, on a suitable opportunity occurring.

T. CLARKE,
*Offg. Secretary.*

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## *Proceedings of the Chief Commissioner of Mysore, General Department, 6th November* 1875.

From the Commissioner, Ashtagram Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, Genl. No. 590—232, dated Mysore, 29th October 1875.

I have the honor to forward for submission to the Chief Commissioner, copies of the marginally noted letters from the Deputy Commissioner, Mysore District, and the Conservator of Forests, on the subject of the demarcation of the boundary line between Malabar and Mysore, and request the favor of your obtaining for me his instructions whether under the circumstances represented by Major Hill, it is not advisable to depute a Forest or Revenue Officer whilst the boundary is being demarcated.

No. 1060, dated 6th October 1875, from Dy. Commissioner, Mysore, with enclosure.
No. 1698, dated 7th October 1875, from the Conservator of Forests, with enclosure.
No. 1079, dated 11th October 1875, from the Deputy Commissioner of Mysore.

It appears from the Deputy Commissioner's letter No. 1079, above quoted, that the survey party from Malabar have encroached upon 3 miles of forests belonging to the Gundlupet Taluk of this Province.

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From the Deputy Commissioner, Mysore District, To the Commissioner, Ashtagram Division, No. 1060, dated 6th October 1875.

In forwarding copy of the correspondence noted in the margin, has the honor to request to be favored as early as possible with any English correspondence in his records concerning the settlement of the boundary dispute referred to.

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From the Deputy Superintendent, Revenue Survey, Wynad, To the Deputy Commissioner, Mysore District, No. 1, dated Sultan's Battery, 24th September 1875.

I have the honor to inform you that the boundary between Mysore and Malabar is about to be demarcated and surveyed in accordance with Dr. Cleghorn's decision from the Rampur Ford to the large mango-tree on the Shigebetta slope. Our operations will commence at Rampur about the 15th proximo, but the Forest Department of Wynad are to commence clearing Dr. Cleghorn's line for us at once. To prevent any contention after this boundary has been surveyed, I have the honor to request that a Mysore Revenue or Forest official may be directed to communicate with the Deputy Conservator of Forests, Wynad, in order that the exact line to be surveyed between Dr. Cleghorn's different points may be decided by the Officers on both sides jointly.

2. The line westward from the Kakanhalla bridge (on the Teppakadu road) to the Rampur Ford is being marked and surveyed in accordance with the boundary shewn on the Ordnance survey sheet map, the country is extremely wild and most difficult to get over. A native Revenue official would hardly accomplish it; I would suggest that the Forest Officers who would be most interested be informed of the progress of the work, and be invited to inspect the line now being cleared and to satisfy themselves that the correct boundary has been marked.

3. As I shall be leaving Wynad in a few days, I beg that, to save time, any reference that it may be necessary to make, or any application for detailed information, may be addressed to my Sub-Assistant *Mr. Frazer in executive charge of the work.

*Gudalur.

Mr. Frazer will himself be going over the whole line in a few days.

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From the Deputy Commissioner, Mysore District, To the Assistant Conservator of Forests, Mysore District, No. 1710, dated Mysore, 28th September 1875.

Forwards copy of letter No. 1 of 24th instant, from the Deputy Superintendent, Revenue Survey, regarding the demarcation of the boundary between Mysore and Malabar, and requests to be informed, if possible by return of post, whether he can arrange to go over the line of boundary with the Amildars and Revenue Survey Officers of Her Majesty's Territory.

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*Proceedings of the Chief Commissioner of Mysore, General Department, 6th November* 1875.

From the Assistant Conservator of Forests, Mysore Range, To the Deputy Commissioner, Mysore District, No. 332—164, dated Mysore, 2nd October 1875.

Your docket No. 1710 of the 28th ultimo.

In reply, has the honor to state that the undersigned can arrange to meet the Amildars and Revenue Survey Officers of Her Majesty's Territory, and requests to be informed when and where he should do so.

From the Offg. Conservator of Forests, Mysore and Coorg, To the Commissioner, Ashtagram Division, No. 1698, dated 7th October 1875.

Has the honor to forward (in original to be obligingly returned) papers as per margin on the subject of the demarcation of the boundary between Malabar and Mysore, and with reference to the request of the Deputy Commissioner for the attendance of a Forest Officer whilst the demarcation is going on, the undersigned is of opinion that as the marking of the boundary between Her Majesty's Territory and Mysore is a Revenue matter, the attendance of a Forest Officer is unnecessary irrespective of the fact that his services cannot be spared.

* * *

From the Deputy Commissioner, Mysore District, To the Commissioner, Ashtagram Division, No. 1079, dated 11th October 1875.

In continuation of this Office No. 1060 of the 6th instant regarding the boundary line between Malabar and Mysore, has the honor to forward copy of a letter addressed to the Superintendent, Revenue Survey, concerning an encroachment made by the Survey party from Malabar in demarcating the line of boundary in the jungles in the Gundlupet Taluk.

From the Deputy Commissioner, Mysore District, To the Deputy Superintendent, Revenue Survey, Coimbatore, dated 9th October 1875.

With reference to your letter No. 1067—609, dated 21st August 1875, on the subject of the proposed demarcation of the boundary line between Malabar and Mysore, I have the honor to inform you that the Amildar of Gundlupet reports that the Head Surveyor entrusted with the duty omitted to pay any attention to the representations of the Mysore officials and has included about three miles of Mysore Territory as forming part of Malabar. One Kurbar Mudda, who is well acquainted with the boundary through the jungle, is able to point out the right line to be taken, I request that no further measures be adopted for clearing the forest or putting down boundary stones till this dispute is settled.

No. 6477—Genl. 230, dated Bangalore, 6th November 1875.

Order thereon.—The Assistant Conservator of Forests should be deputed to proceed in company with the Amildar of Gundlupet Taluk, and assist the Deputy Conservator of Forests in Wynad in the demarcation of the boundary line in question, arrangements having been previously made by the Deputy Commissioner, Mysore District, with the Wynad Forest Officers as to the time and place of meeting.

2. A report of the proceedings will be furnished to the Deputy Commissioner of Mysore, who, under the orders of the Commissioner of Ashtagram, will dispose of any petty questions that may arise, and report the final result to this Office.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, General Department, 19th November* 1875.

READ—

Proceedings of the Chief Commissioner, Department of Revenue, Agriculture and Commerce, dated 23rd October 1874, regarding the settlement of the boundary dispute between the Punganur Zamindari and the Kolar District.

Letter No. 5373—Rev. 27, dated 23rd October 1874, to the Secretary to Government, Revenue Department, Fort St. George, acquiescing in the award arrived at by Mr. Sullivan in the matter of the dispute in question.

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From the Commissioner, Nundydroog Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, Genl. No. 304, dated Bangalore, 12th November 1875.

The Chief Commissioner's Proceedings No. 5372—R. 117 of the 23rd October 1874.

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With reference to the above, has the honor to forward for the Chief Commissioner's information copy of the marginally noted communication from the Deputy Commissioner, Kolar District, stating that the Trigonometrical Station at Rajugondlahalli is now within the limits of the North Arcot District, and to request that the same may be communicated to the Superintendent, Great Trigonometrical Survey of India.

No. 1415—535 of 3rd November 1375, from Deputy Commissioner, Kolar District, to the Commissioner.
No. 1427—891 of 3rd November 1875, from Deputy Commissioner, to the Collector of the North Arcot Dist.

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From the Deputy Commissioner, Kolar District, To the Commissioner, Nundydroog Division, No. 1415—535, dated 3rd November 1875.

This Office docket No. 2159—846 of 27th June 1875.

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Adverting to the above, the undersigned begs to submit for the Commissioner's information the enclosed copy of letter No. 1427—891 of this date addressed to the Collector of the North Arcot District, intimating that the Survey Station at Rajugondlahalli comes within the limits of the North Arcot District under the terms of Mr. Sullivan's award in the case of the boundary dispute between Punganur Zamindari and this District, communicated in the Commissioner's official memorandum No. 630 of the 24th November 1874.

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From the Deputy Commissioner, Kolar District, To the Collector of the North Arcot District, No. 1427—891, dated Kolar, 3rd November 1875.

Adverting to the Proceedings of the Madras Government in the Revenue Department, No. 1104 of the 28th August 1874, conveying its formal sanction of the award arrived at by the Director of Revenue Settlement, Madras, in the case of the boundary dispute between the Punganur Zamindari of your District and the Mulbagal Taluk of this District, I have the honor to bring to your notice that, as under that award the Great Trigonometrical Survey Station on the Rajugondlahalli hill now falls within the limits of Kurjalli village of your District, I shall strike it out from the Returns of this District, and beg that you will be pleased to issue necessary orders for its being maintained by the villagers of Kurjalli.

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No. 6766—GENL. 1358, DATED BANGALORE, 19TH NOVEMBER 1875.

ORDERED, that copies of the foregoing papers be communicated to the Superintendent of the Great Trigonometrical Survey for information.

T. CLARKE,
*Offg. Secretary.*

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## *Proceedings of the Chief Commissioner of Mysore, General Department, 26th November* 1875.

From the Survey and Settlement Commissioner, Mysore, To the Offg. Secretary to the Chief Commissioner of Mysore, Genl. Dept., No. 1506, dated Poona, 14th October 1875.

I have the honor to forward two letters* from the Superintendent, Revenue Survey, on the subject of the Chief Commissioner's orders No. 2655—574 of the 26th June last, and No. 4186—918 of the 27th August last on the subject of the difficulties experienced by Mr. James, Assistant Superintendent, Revenue Survey, in procuring carriage in the Manjarabad Taluk in May last.

* No. 688 of 13th August 1875.
No. 805 of 14th September 1875.

2. On the first of Captain Grant's letters above referred to some farther reference to the Superintendent, Revenue Survey, was necessary, and on receipt of the required information the Chief Commissioner's second orders on the above subject were received which necessitated a second investigation and farther reference. I will now endeavour to notice as concisely as possible the points calling for remark in this correspondence, without going in detail over ground already fully noticed by Captain Grant's letter and those appended to it, commencing with the first order of the Chief Commissioner and Captain Grant's remarks in reference to it No. 688 of the 13th August.

3. In the 4th para of order No. 2655—574 of the 26th June last it is stated that Mr. James might have given information of his requiring carts on the 12th May earlier than the middle of April. I confess, it appears to me, that Mr. James could hardly calculate so precisely on his future movements as to name the precise date on which he would require and be ready to move from one Taluk to another, so long before as only two or three days less than a complete month, and that he should have been able to keep so pecisely to his named date as he did is in my experience of the nature of a Survey Officer's work somewhat remarkable. I certainly should have supposed that a notice to the Amildar of 27 days was sufficient to enable him to secure any number of carts, if they were procurable at all, much less so small a number as twenty. In few cases could Survey Officers indicate the date of their future movements so precisely and keep to the date so exactly as Mr. James did; it is plain that not keeping to the previously stated date, however unavoidably, would at once when the desire to make excuses existed be laid hold of as a justification for the carriage not being forthcoming.

4. It is by no means always advisable for a Survey Officer to fix, and allow to be publicly known too long before, a "hard and fast" date on which he intends to leave a Taluk; the knowledge of this cannot be concealed from his men and may very probably have a mischievous result, as after a certain date men whom it may be necessary to leave behind the Assistant to complete work in hand in the Taluk he is leaving, would feel secure from any unexpected visit from him and to the liability to such unexpected visits we attach considerable importance in controlling a Measurer's proceedings.

5. In para 5 it is stated that 20 carts were more than were necessary for an Establishment consisting of a few Karkuns and 25 Measurers. In the margin of para 2 of Captain Grant's letter No. 688 of the 13th August last is a detail of the distribution of the carts; namely nine for Mr. James' private needs, two for office records; two for Office Karkuns, and seven for Measurers. In para 5 of the Chief Commissioner's order no allusion whatever is made to any private needs of Mr. James in the way of carriage for his tents and baggage requiring to be met, but I assume that nine carts would hardly be considered an exorbitant number for the carriage of an Officer required to remain for 7½ months continuously in the Districts in tents.

6. Excluding Mr. James' eleven carts for his private wants including two for the Office records 9 remain as used by the Karkuns of Mr. James' Office and his Measurers; whether these people have any claim or not to be considered in the supply of carriage I will refer to in the sequel.

7. I now come to the second order of the Chief Commissioner No. 4186—918 of the 27th August last and Captain Grant's report thereon No. 805 of the 14th September last.

8. In para 1 of the Chief Commissioner's order it is stated that in addition to the 20 carts alluded to in previous correspondence Mr. James had simultaneously ordered to be provided and received 13 carts on the 25th April so that instead of 20 carts having been indented for 33 were actually indented for, of which 25 were furnished by the 12th May and the remainder by the 22nd of that month. In the next para the Chief Commissioner accepts these statements as without reason for doubt, condemns Mr. James' statements as groundless and animadverts on Mr. James' "omission to mention the extent "of the aid he had actually received as liable to mislead," &c.; in plain words Mr. James is accused of a suppression of material facts, the statement of which would have to a decided extent deprived his complaint of a probability of being entertained by his superior Officers. Moreover this charge is made against Mr. James without his explanation having been even asked for.

9. I now beg to enter into explanation which will shew that the above charge against Mr. James was totally groundless. Mr. James' complaint was that he applied for 20 carts on the 12th May to enable him to move from the Manjarabad Taluk to another Taluk. The 12 carts supplied to Mr. James on the 25th April were for a journey which he required to take within the Manjarabad Taluk and had not the remotest reference to his intimated journey and removal of his establishment, to commence on the 12th May, from the Manjarabad to another Taluk. It might with equal justice be asserted that because the Amildar had not failed to provide Mr. James with carts to move his camp within the Taluk during the 4 or 5 months before May, that therefore he had not failed to supply carts for the final move from the Taluk in May.

10. This is the bare fact. For the details regarding it and the dissection of the unveracity of the Amildar I beg to refer to paras 3 to 6 of Captain Grant's letter No. 805 of the 14th ultimo appended, and I beg to urge the propriety of the request made in Captain Grant's 9th para that the base of the Chief Commissioner's censure on Mr. James having been clearly and beyond doubt shewn to be without foundation, the charge of suppression of facts made against Mr. James may be withdrawn.

11. The Amildar's statements printed at the head of Chief Commissioner's order No. 4186—918 of the 27th August last are shewn in Captain Grant's letter and the appended correspondence to be generally either false or greatly exaggerated. I need not here go into farther detail in regard to them. The Deputy Commissioner quotes these statements without giving any opinion as to whether they are in his judgment true or false; I cannot but think that he would have done better not to have accepted them without some reservation or enquiry. The Amildar appears to have felt himself on his defence and made statements such as he deemed would suit his purpose for the present, without regard to those statements standing the test of investigation, and as regards the Deputy Commissioner, he appears to have not calculated erroneously.

12. I now come to the question of Measurers' carrying their families with them in the Districts which in para 3 of Chief Commissioner's order No. 4186—918 of the 27th August last it is directed "should be discontinued as soon as practicable." On this point I beg to refer to para 8 of Captain Grant's letter No. 688 of the 13th August last. If Measurers who are kept in the Districts for 8 months in the year are not allowed to have their wives and young families with them, what can they do with them, and how could they provide for their own daily necessary wants in the way of getting their food cooked, &c. A man cannot work in the field from early in the morning till midday and then on returning home to do two or three hours' work or more in mapping and calculating out his mornings' work and also provide himself cooking his own food. Besides what respectable native would accept service in which he was compelled to separate himself from his family for two-thirds of the year? or how long in the vicinity of any of the large places in Mysore would any young Karkun retain a respectable character? It appears to me impossible to carry out an order of this nature without losing one and the best half of our men and utterly demoralizing the other half. I have never heard that the numerous minor servants of the Mysore State of the same class as our Measurers and Classers, and much lower paid than they are, are debarred from having their families with them; fair measure for one class is equally fair for the other.

13. It is however most necessary to prevent our Survey employés from carrying about adult male hangers-on with them for obvious reasons, and every precaution is taken and latterly with increased strictness on this point there has been and will be no relaxation of vigilance. But as regards the desire that the Measurers be interdicted from taking their families with them, I beg that a reconsideration of the matter may take place. In my opinion the consequences of such an order would be simply disastrous.

14. The second point is the prohibition of any aid to our Measurers, &c., in obtaining carriage. When two or three men and their families have to travel a considerable distance together they ordinarily club together for a cart; without some carriage, unless the distance is very small, they cannot travel. There would be great waste of time on the part of the Measurers if they had to leave the small villages in which they may be employed to go and search in the larger places for carts, and if they are not allowed some help in this respect, at times they would find it difficult to obey orders in moving promptly; in many cases they can make their own arrangements and do so, but there are cases in which they cannot, and to deny all help in such cases would be to our own detriment. By obtaining carts through the Assistant Superintendent there is every guarantee that more than can be avoided are not asked for and that the hire is duly paid. The rate of hire fixed by the Amildar is not likely to be less than the full amount fairly due and would be certainly more than the Measurer himself would be able to get them for had he the time and opportunity, which he often has not, to go to the proper places to search and make his own bargain.

15. I would farther remark that during several years work in Mysore neither difficulty nor com-

plaint such as now has occurred has ever happened, and moreover never will happen when it is known that the superior District Officers are ready to give what reasonable help they can, in fact when the District Officer and the Survey as it said thoroughly "pull together;" that this has not been quite entirely the case in Manjarabad is a matter of notoriety and has been shewn by correspondence which has come before the Chief Commissioner during the last few months. Let it be once known that the Survey and the District Officers are at cross purposes and all will go wrong, and nothing but difficulties vexations to all parties will arise: let the contrary impression exist, and the contrary result will follow as I am glad to say is now the case in, as far as I am aware, every other District of Mysore.

16. Everything possible is done to keep our people in order, and I am sure that no class of native officials is so closely looked after by their European superiors; this vigilance on their part is most necessary and nothing on my part is or shall be wanting to keep it up, but without requesting a farther consideration of the matter I am most reluctant to attempt to introduce radical changes of existing practice which has never hitherto been a cause of complaint, which changes would be entirely subversive of the domestic habits of every respectable native and would in my opinion lead to most unfortunate results.

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From the Superintendent, Revenue Survey and Assessment, Mysore, To the Survey and Settlement Commissioner of Mysore, No. 688, dated Camp Bangalore, 13th August 1875.

I have the honor with reference to the Offg. Chief Commissioner's order No. 2655—General 574, dated 26th June 1875, to submit the following additional information on the subject of delay in supplying carriage for Mr. James, Assistant Superintendent, Revenue Survey.

2. Mr. James' order to the Amildar of Manjarabad to have 20 *carts ready for him on the 12th May was dated 19th April No. 106.

| | | | |
|---|---|---|---|
| * Self | ... | ... | 9 |
| Office Records | ... | ... | 2 |
| Do Karkuns | ... | ... | 2 |
| Measurers | ... | ... | 7 |

Inserted and forwarded with Superintendent's Memo No. 739, dated 21st August.

3. On the 12th May 11 carts out of the 20 were forthcoming. Mr. James took them and started for Magadi.

4. There thus remained 9 carts to be furnished and the Amildar promised they should be ready next day.

5. On the 20th May 3 carts were obtained and Mr. James' office people started. The Measurers managed to find the rest of the required carriage for themselves but at the expense of considerable loss of time as below:—

| Employés. | No of days delay. |
|---|---|
| 1. Bhimaji Srinivas, Measurer .. .. | 2 |
| 2. Chinto vaman do .. .. | 9 |
| 3. Ramkrishna Balvant, Measurer .. .. | 6 |
| 4. Timmaji Gurnath, Huzur Karkun .. . | 8 |
| 5. Sitaram Ramchandra, learner . .. | 8 |
| 6. Narhar Lakshman, Measurer .. .. | 3 |
| 7. Ramchandra Subbaji do .. .. | 6 |
| 8. Swami Rao Narsu, learner .. .. | 8 |
| 9. Annaji Venkatesha do .. .. | 8 |
| 10. Krishnaji Bhimaji do .. .. | 8 |
| Total days lost.. | 66 |

The above are exclusive of Sundays, holidays, &c. The days lost by the Measurers would have been heavier, but these men managed to do extra work on other days and entered fewer days as lost than was actually the case. Of course the work suffered nevertheless. One or two men managed to shew no days ost at all by working out of hours.

6. It is thus I think established that the carriage, according to the Amildar's promise when Mr. James was leaving on the 12th May, was never supplied with the exception of 3 carts on the 20th May. With reference to para 2 of the Chief Commissioner's order I do not think it likely the men would run the risk of making false representations of want of carriage. It is clear that some of them really did start although, the Amildar not having procured carriage according to promise, they might have had a very plausible excuse for not starting. Measurers 1,6 and 7 must have started with carriage they managed to secure for themselves. Mr. James' orders to leave were urgent and he was then after his time. No doubt Mr. James would have stayed behind could he have foreseen that the Amildar, in addition to his failure to supply carriage punctually, was further making him false promises.

## *Proceedings of the Chief Commissioner of Mysore, General Department, 26th November* 1875.

7. With reference to para 4 of the Chief Commissioner's order I do not think from my experience that longer warning for the carriage required than Mr. James gave, would ever be expected even in the Malnad of Nagar. Mr. James could not have told his probable date of departure earlier, indeed I am somewhat astonished he made so accurate a calculation as he did. Closing up work before going to a fresh District is a work of great nicety and Mr. James could not have done more than he did

8. With reference to para 5 of the Chief Commissioner's order I would observe that 20 carts is not in my opinion a large requisition. An Assistant and his Measurers are obliged to remain out in the Districts for 8 months at a time. The Officer must trust to his own resources, for that period, as regards camp furniture and stores. He is liable, as in the present instance, to be ordered off to a new and distant part of the Province. The Measurers have their Government kit to carry and it cannot be supposed that these men can get on without some members of their families to cook and perform other duties for them on returning from some 6 or 7 hours' work in the field. Carriage is expensive, especially in the western Taluks of Mysore, and I do not think it at all likely that the Officers of this Department would indulge in extra and unnecessary carriage On the contrary they have every possible reason to limit their requirements to the very utmost point consistent with the work they have to perform. The only carriage the Assistant does not pay for out of his own pocket is that required for Government records.

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From the Superintendent, Revenue Survey and Assessment, Mysore, To the Survey and Settlement Commissioner of Mysore, No. 805, dated Camp Bangalore, 14th September 1875.

I am now in a position to report finally on the case of the difficulty which occurred in May last in supplying Mr. James and his Establishment with carriage to enable him to move from Manjarabad to Magadi, and which formed the subject of correspondence as per margin.

Chief Commissioner's printed Proceedings No. 2655—Genl. 574, dated 26th June 1875.
Chief Commissioner's printed Proceedings No. 4186—Genl. 918, dated 27th August 1875.

2. It is with reference to the last order by the Officiating Chief Commissioner as above that I have chiefly to report. I now submit Mr. James' letter No. 30* of the 11th instant in which that Officer avails himself of the first and only opportunity he has had to contradict the statements made by the Amildar of Manjarabad quoted but, I observe, not endorsed by the Deputy Commissioner in his letter No. 486 of the 16th August 1875.

* With the Deputy Superintendent's forwarding letter No. 805 of 11th September 1875.

3. Mr. James' letter is clear and decisive. The Amildar's statements are almost without exception now disproved. That official suppresses the fact that the 12 carts which were supplied to Mr. James on the 25th April were for use *within* the Taluk; he states untruthfully that Mr. James made over the said 12 carts to his Measurers on arrival at Saklespur; he disingenuously uses the words "as soon as they arrived" instead of "next day" with reference to the 9 carts not provided on the 12th May; he is wrong in his dates and figures as regards the number of carts supplied from first to last making the number 38 instead of 26 (*vide* statement appended to Mr. James' letter) of which 2 carts were bought out-right by the Measurers and 2 only came, on the Measurers buying the Dál they contained and selling it at a loss to themselves in the Bazar.

4. The worst feature in the Amildar's defence, for it is little else, and being such I am surprized that the Deputy Commissioner should embody it in his letter without guaranteeing its correctness, is the unsupported and general attack he makes upon the Survey Department as regards the number of relatives accompanying the Measurers and regarding the non-payment of batta. In the statement appended by Mr. James the number and description of the Measurers' followers, so far as he knew of them, is given. There may perhaps have been more, but not to Mr. James' knowledge, and had he learnt the truth, if truth it be, he would have prevented them accompanying the Measurers. No complaint of non-payment of batta has been received either by Mr. James, Major Anderson or myself and no instances are cited either by the Amildar or the Deputy Commissioner.

5. The vague statement made by the Shekdar about the Measurers not starting when they got their carriage is fully disposed of by Mr. James in para 7.

6. So completely does this case hinge upon the veracity of the Amildar that I feel bound to quote against him the marginally noted correspondence which shews that he grossly deceived the Deputy Commissioner as to the strain upon his time and establishment made by the Survey in constantly sending for money.

Ashtagram Division Commissioner's letter No. 119, dated 23rd April 1875, to the Survey Superintendent and enclosures.
Survey Superintendent's letter No. 468, dated 16th June 1875, to the Ashtagram Division Commissioner and its enclosures.

7. The Deputy Commissioner rests his letter chiefly upon the report of the Amildar for the accuracy of which he does not clearly vouch although he gives an epitome of it. One point however is deemed of importance by that Officer, namely that when he met Mr. James at Hassan on the 14th or 15th May no mention was made of the difficulty which had been experienced. This only strengthens Mr. James' statement that he was promised the deficient carriage *next day* and not *as soon as they arrived* as untruthfully stated by the Amildar. Had the Amildar not promised the carts next day I very much doubt if Mr. James would have started when he did. He believed at the time he met Captain Shaw that the Amildar had kept his promise, in fact he did not know any difficulty had occurred, excepting, as he thought at the time, a delay of one day, until arriving at Magadi.

8. I do not think, after what has been shewn, any one can doubt that Mr. James' report was a perfectly fair one. He asked for 20 carts on the 12th May and got only 11. The Amildar promised the remaining 9 next day and did not keep his promise. Mr. James consequently had to shew loss of days and a report as to the cause was inevitable. When I reported the case to you I believed, and still believe, I was doing so in the interests of Government, the ample warning of nearly one month as to Mr. James' requirements being in my opinion a leading feature in the case, rendering it worthy of prominent notice.

9. As the Chief Commissioner's order No. 4186—Genl. 918, dated 27th August 1875, is avowedly conditional upon the correctness of the facts having been correctly stated by the Amildar and as it is now clear beyond doubt that the Amildar's statements cannot stand the test of close enquiry, I trust the censure, which the now widely circulated order in question appears to me to imply upon Mr. James' proceedings, may be withdrawn.

10. The abuse alluded to in para 3 of the order will, if found to exist, be put a stop to ; at present the Measurers are required to give correct lists of all those who accompany them and obtain the Assistant Superintendent's sanction. All complaints regarding non-payment of batta, or any other fair demand on account of supplies or carriage, will be at once enquired into ; but it is only fair to say that no such complaints have yet been made to the Deputy Superintendent or myself.

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From the Deputy Superintendent, Mysore Revenue Survey, To the Superintendent, Mysore Revenue Survey, No. 805, dated Bangalore, 11th September 1875.

With reference to Chief Commissioner's order No. 4186—Genl. 918 of the 27th August 1875, on the subject of the delay in furnishing carriage to this Department in the Manjarabad Taluk, I beg herewith to forward Mr. James' letter No. 30 of this day's date, shewing that the statements made by the Amildar of Manjarabad, and quoted by the Officiating Deputy Commissioner, Hassan, as correct, are not so in many and essential particulars.

2. With reference to paras 6 and 7 of Officiating Deputy Commissioner's letter No. 486 of 16th August, I beg to bring to your notice that, to the best of my knowledge, no complaints have ever been made to this Office of non-payment of cart-hire, batta, &c., by Measurers of this Survey, and was not aware until reading the paras in question that any exception to the customs of the country was made in the Hassan District in favor of Survey subordinates.

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From W. E. A. James, Esq., Assistant Superintendent, Revenue Survey, To the Deputy Superintendent, Revenue Survey, No. 30, dated Bangalore, 11th September 1875.

With reference to the letter of the Officiating Deputy Commissioner, Hassan District, to the Officiating Secretary to the Chief Commissioner No. 486, dated August 16th, 1875, I have the honor to submit the following remarks.

2. I will deal, first, with the statements of the Manjarabad Amildar, as far as they concern my establishment.

3. It is the fact that twelve carts were received by me, to move camp *within* the Taluk, on the 25th of April. On arriving at Saklespur I did *not* make over these carts to my Measurers, they were taken in charge by a taluk peon who was waiting at the bungalow on purpose. Four of my Measurers were ready to start, and they received four of these carts.

4. On the 12th May the Amildar handed over eleven carts out of the twenty indented for on the 19th April, and positively assured me that he could supply the rest next day. I had no reason to doubt his statement, and as I was unwilling to lose time I started with my office, expecting my men to follow.

5. After an interval of eight days, the Amildar, I am informed, supplied six carts not seven as stated by him. One of these had such footsore bullocks that it was rejected. Three Measurers with their followers and learners started with three of the carts. The owners of the other two positively refused to go, and after several days haggling, two Measurers, Chinto Vaman and Ramkrishna Balvant, bought the carts and bullocks, paid for them in the presence of the Shanbhog of Mollalli and started.

6. No carts were supplied by the Amildar on the 22nd as stated, but on that date, two carts laden with Dál arrived at Saklespur, and the owners agreed with two Measurers Narhar Lakshman and Shrinivas Timmoji, that if they could get rid of their load they would take them to Magadi. On this the Measurers purchased the Dál and sold it to a Saklespur shopkeeper at a considerable loss to themselves.

On the 23rd of May Ramchandra Subbaji, a Measurer, managed to find a cart in a neighbouring village and hired it to take him to Magadi for nine rupees. He holds the receipt for the money.

Two remaining Measurers and my two Huzur Karkuns also managed to find carts for themselves. The statements of the men as to dates are borne out by their official returns.

7. The statement of the Taluk Sheristadar that the men delayed in Saklespur is perfectly groundless. According to the Amildar's own shewing, no carts were supplied between the 12th and 20th of May. The real fact of the case is, that only three available carts were given, and of the Measurers who got them, two started on the 21st and one on the 22nd.

8. I am not aware of any application being made for batta.

9. Most of the Measurers had some members of their families with them. It cannot be supposed that a man who has hard work in the field from early morn till near noon can, after his return home, proceed to cook his own food and draw his own water. Even were this physically possible, the man would have scant time left to plot his map and write up his books. The men reported to me in the beginning of the season the number of dependants each had taken with him and I did not think the number excessive.

10. I believe it is the custom for Measurers to pay the cartmen from time to time, on the road, as they require it. I have never heard of any complaint of non, or dilatory payment on the part of Survey subordinates.

11. When I met Captain Shaw at Hassan and at Channaraypatna I was not aware of the delay that had occurred in furnishing the carts, as I expected my people were following me. It was only when I reached Magadi that I heard that the carts had not been supplied as promised.

12. I append a statement of the number of Measurers and their followers and the dates when they were supplied with carts and the dates of their departure.

13. As regards myself, I have the honor to observe that I kept back no facts in my letter. The case in question was quite distinct from any previous aid that might have been afforded by the authorities. I knew that for those Measurers who had not been able to start previously and for my own Office and carriage I should require a certain number of carts by a certain date, and I gave nearly a month's notice that I should require twenty carts on the 12th of May. Nine of the carts were not ready on that date, and even by the Amildar's own shewing were not supplied till eight and ten days afterwards. As I am responsible for the loss of days, I in duty to myself reported the facts without adding to or subtracting anything from them.

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No. 6882—Genl. 1393, dated Bangalore, 26th November 1875.

Order thereon.—The Offg. Chief Commissioner sees no reason for modifying the orders already passed in this case. In submitting Mr. James' original complaint, with his No. 921 of 16th June last, the Survey and Settlement Commissioner alluded to a want of hearty co-operation on the part of the District Officer—an imputation which the facts in this particular case did and do not seem to justify.

2. The Offg. Chief Commissioner had no wish to accuse Mr. James of a wilful suppression of facts, but it was obvious that whatever may have been the purpose for which the first supply of carts had been obtained by him, the resources of the taluk in procuring

an additional supply of 20 carts were diminished to some extent, and it was therefore of material importance that in preferring his complaint against the taluk authorities, Mr. James should have stated what had been the full extent of his requisition, more especially it may be remarked, as the order for both supplies was issued simultaneously. It was not only the requirements of Mr. James' party that had to be met, but those of the other parties working in the taluk, and it would seem that the number of carts in all supplied to the Survey parties at that period was 124.

3. The Offg. Chief Commissioner cannot under the circumstances consider it unreasonable to expect that further time should have been given to the Amildar to comply with the requisitions, and although some slight additional cost may be incurred in paying detention batta, where carts may arrive prematurely, it would be preferable that this should occur, than that requisitions should be made beyond the means of the taluk authorities to comply with, emergently.

4. The Offg. Chief Commissioner will not discuss further the question raised as to the truth of the statements made by the Manjarabad Amildar, further than to remark that the refutation of those statements is founded obviously on other statements made to Mr. James by his Measurers. As before remarked, the delay occasioned to Mr. James' work in the Magadi Taluk was the result of his own proceeding in leaving Saklespur before satisfying himself that the requirements of his party could be met.

5. With regard to the reasons urged for permitting the women and children and other followers of the Measurers to accompany them, the Officiating Chief Commissioner is quite unable to admit the force of those reasons. According to Mr. James' statement the strength of his party was 32, while the followers consisting of women, children and "cooks" numbered 41. The presence of such a body in the train of a Survey party is clearly objectionable, and might be obviated by a system of messing for which a few servants would suffice. The Officiating Chief Commissioner must request that the orders issued on this subject may be promptly carried into effect.

T. CLARKE,
*Offg. Secretary.*

*Proceedings of the Chief Commissioner of Mysore, General Department, 26th November* 1875.

19

Nos. 828—836.

*Extract from the Proceedings of the Government of India in the Department of Revenue, Agriculture, and Commerce,—dated Simla, the 22nd July* 1875.

FORESTS.

READ—

A despatch from Her Majesty's Secretary of State for India, No. 7, dated 18th February 1875, forwarding letters, on the subject of cultivating bamboos for the manufacture of paper stock, from Mr. Routledge, a paper manufacturer at Sunderland.

Read also—

A despatch from Her Majesty's Secretary of State for India, No. 25, dated the 6th May 1875, forwarding copy of a further communication from Mr. Routledge on the subject of the cultivation of the young and growing stems of bamboos for paper stock, and requesting that investigations be made by the Forest Department as to the best species of bamboo for the purpose, and that it may be considered whether it would be expedient to establish experimental plantations in suitable localities with a view to ascertain how far its cultivation may be of a remunerative character.

A memorandum by the Inspector General of Forests, dated the 8th July 1875, on the cultivation of bamboos for supplying the material necessary for the manufacture of paper.

RESOLUTION.

The Governor General in Council desires that full effect be given to the suggestions of Her Majesty's Secretary of State regarding the cultivation of bamboo for the manufacture of paper. There seems no doubt that Mr. Routledge is right in attaching the value he does to bamboo as material for paper stock ; and in places where the natural production is in excess of the consumption, as in Assam, Sikkim, Burma and Chittagong, it is probable that almost any quantity of young shoots could be procured at remunerative rates not from plantations only, but also from the natural bamboo forests.

2. Forest Officers, particularly in the Provinces of Bengal, Assam and Burma, should be instructed at once to establish experimental plantations for the purpose of ascertaining the productive powers of the different kinds of bamboo. In Bengal it is understood that the ryots promote the growth of the young shoots by thinning and covering the roots with a thick layer of earth and leaves. Plantations of the different species should be commenced in suitable localities, and the steps taken to give effect to these orders, as well as the results of these experiments, should be recorded in the annual progress reports.

3. The Governor General in Council takes this opportunity to invite the attention of Forest Officers to the elephant grass and other large cane-like grasses which cover vast extents of land along the rivers of Pegu, and in the Terai at the foot of the Himalaya. Wherever paper is manufactured in jails or elsewhere, experiments should be made to test the value of these grasses for the manufacture of paper. The material may be supplied by Forest Officers, but the greatest care should be taken to keep the different species distinct, and to maintain distinct records of the experiments made with the produce of each species at different stages of its growth.

ORDER.—Ordered, that copies of this Resolution, with the despatches (and their enclosurers) and of the memorandum by the Inspector General of Forests, be forwarded to the Local Governments and Administrations noted in the margin for information and guidance.

Bengal.
North-Western Provinces.
Punjab.
Oudh.
Central Provinces.
Burma.
Mysore and Coorg.
Assam.
Hyderabad.

(True Extract)
A. O. HUME.
*Secretary to the Govt. of India.*

No. 19—834. To the Chief Commissioner of Mysore and Coorg.

## *Proceedings of the Chief Commissioner of Mysore, General Department, 26th November* 1875.

From Her Majesty's Secretary of State for India, To the Government of India, No. 7, dated the 18th February 1875.

20th January 1875.
26th January 1875.
July 1866.

I herewith transmit two letters on the subject of cultivating bamboo for the manufacture of paper stock which have been received from Mr. Routledge, a paper manufacturer at Sunderland, together with a note by Mr. Rogers, B. C. S., who now holds an appointment in the Department of the Reporter on the products of India.

2. Mr. Routledge has matured a process by which he produces a fibrous paper stock, and looking to the high price of esparto and to the great and increasing demand for paper, he believes that a great demand will arise for this material as soon as it is known that it can be produced at a reasonable cost as compared with the price of esparto. As it will have to be grown for the sake of the younger shoots and not for the mature cane, and as the paper stock must be prepared on the spot, it will be necessary to make special arrangements for trying a satisfactory experiment. Mr. Rogers suggests that such an experiment might be undertaken usefully by the officers in charge of jails.

3. I consider that the subject is worthy of the careful consideration of your Government, and I propose to furnish you with some further information on the subject of preparing the bamboo stock. I desire that the Superintendents of the Botanical Gardens at Calcutta and Saharanpur may be instructed to transmit supplies of the seeds and stools of the species of bamboo enumerated in Mr. Routledge's second letter in compliance with his request.

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From T. Routledge, Esq., To the Under-Secretary of State for India, dated the 20th January 1875.

From your official connexion with the Board of Trade during the agitation attendant on the abolition of the paper duty in 1861, many of the facts recited in the accompanying statement (printed in 1866) will probably be in your recollection.

Prior to 1861 I was the only paper manufacturer using esparto, now employed universally in the trade. In 1871, ten years only from its introduction, the annual importation exceeded 140,000 tons—since then however the supply has gradually fallen off, while at the same time its cost has increased, the best Spanish grass, now commanding upwards of 10 £ 10 s. per ton being more than double the price I realised on many thousands of tons during the early years of its introduction.

Esparto is a wild grass, growing on waste lands in Spain and Africa, and the native collectors while gathering the plant pluck it up, roots and all, in the most reckless manner, and thus it is being gradually but surely exterminated.

The paper trade is thus again experiencing the same difficulty as in 1861, when the report on the Rag Committee was published; and as the demand for paper is continually extending not only in this but in other countries, the manufacturer is compelled to eke out his supplies of raw material by the use of clay, wood and other "blends" ill suited for producing paper of good quality;—high prices are of necessity maintained, and the consumer suffers.

Anticipating the present position, I have always continued my experimental researches on various fibrous substances which appeared likely to meet the requirements of the case with varying success, but have only recently succeeded in maturing a process by which I produce a fibrous paper stock from "bamboo," a material which will make a quality of paper equal, if not superior, to esparto, and at considerably less cost.

In India throughout nearly the whole of the British possessions, "bamboo" grows indigenously, requiring but little (if any) cultivation, and furnishing an inexhaustible supply of material to meet this exigency of the trade.

"Bamboo" however, from its bulky nature as grown, or when cut down and even when dried, and from its liability to rapid damage from fermentation, cannot be brought to this country in its raw condition. It must therefore be converted into "stock" *in situ* or where produced. Such stock being dried and baled for economy of transport, would be delivered to the paper manufacturer in a condition requiring but little further preparation to fit it for bleaching and converting into paper.

In bringing this important subject under your notice I venture to think it merits the support and favorable consideration of the Indian Government, seeing the benefit that would accrue from the introduction of such a new industry to India; and I would mention, as a parallel instance, "rhea" fibre, for the preparation of which Government have lately offered premiums.

I may also cite "jute" and the magnitude of the commerce this fibre has attained, seeing no reason to doubt that, once introduced, "bamboo paper stock" would rapidly attain similar dimensions.

I beg to add that, unlike "rhea fibre," an economical and suitable system of treating which has not yet been discovered, my process for treating "bamboo" has passed the experimental stage, as I am manufacturing upwards of 100 tons of esparto weekly into paper, "half stuff," and paper stock by a similar process at our works here. This I shall be happy to shew any gentleman you may instruct, giving him all details of the cost of production. The small samples I enclose herewith for your inspection were produced from a stem of bamboo lately growing in the Royal Botanical Gardens at Kew. This stem, 24 feet long, was produced in eight weeks from the "stool" or root, shewing the prolific nature of the plant and the rapidity of its growth. This stem was green, and a prominent feature in my system of treatment consists in taking the stems of the "bamboo" while growing or in the vegetable condition, and before by age they have become converted into wood or woody fibre.

I have only now to add that I shall be happy to furnish any further information you may desire, or attend any interview you may appoint

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From T. Routledge, Esq., To the Under-Secretary of State for India, dated the 20th January 1875.

On making application at the India Museum for information respecting "bamboo," in Dr. Forbes Watson's absence I saw Dr. Birdwood, who advised me that my proper course was to apply to you, my object being to obtain from the Botanical Gardens at Saharunpur, near Calcutta, "rhysoms" or roots of the various varieties of "bamboo" in the gardens under cultivation, as also seeds, with the view of propagating the same in my stove and hot-houses here, to study their habits of growth.

I obtained in a late visit to Paris some "stools" or roots of two or three varieties of "bamboo," but unfortunately all dwarf varieties. Dr. Hooker has been good enough to give me some seed of *Bambusa stricta* which is progressing well, and an eye or "rhysom" of *Bambusa vulgaris*, but he cannot spare any more from Kew, nor do I know where to procure any of the varieties I desire in this country, these are :—

*Dendrocalamus strictus*, "*Bambusa stricta.*"
*Bambusa vulgaris.*
*Bambusa arundinacea.*
*Bambusa balcooa.*
*Bambusa tulda.*
*Bambusa gigantia* (*gigantea.*)
*Bambusa Brandisii.*

Indeed any eyes or "rhysoms" of the large growth varieties of *Bambusa*, packed in sand, would, I doubt not, reach me safely.

Perhaps you will be good enough to refer this letter to the Museum authorities, with whom I can enter more into detail as to my requirements.

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IN THE CAUSE ROUTLEDGE *v.* SOMMERVILLE AND SON.

*Popular account of esparto or Spanish grass, and of its introduction for the manufacture of paper (used at trial, Edinburgh, July* 1866).

Previous to the spring of the year 1861 esparto or Spanish grass had never been successfully employed upon a practical working scale for the manufacture of paper, either in this or any other country except at the mills in the occupation of the pursuer at Eynsham, near Oxford, where however during a period of five years previous to that date the pursuer had used this material exclusively, without any admixture of rags, for printing and other white papers.

The *Journal of the Society of Arts*, 28th November 1856, containing a paper read at the weekly meeting of the Society by Dr. Royle on the fibrous plants of India, was printed on paper made exclusively from esparto at the pursuer's mills, and samples of the paper and half-stuff or paper stock produced by him from esparto were exhibited at the said meeting.

Desultory experiments had from time to time been made in previous years by one or two manufacturers with the view of using esparto fibre, but in no one single instance were they ever carried to a

successful issue, the material being finally abandoned as intractable; and esparto fibre did not really enter into consumption until the pursuer introduced it generally to the trade, together with his patented process of treatment, in the years 1860-61.

The evidence of several leading members of the trade given before the Rag Committee of the House of Commons in July 1871 (see blue-book) fully bears out this statement. Mr. Thomas Wrigley, of Bridge Hall Mills, Bury, Lancashire, who now uses in his mill from 70 to 80 tons of esparto weekly, in reply to Question 2320 states: "With respect to the Spanish grass it does so happen that I have had some recent experience. Mr. Routledge, a gentleman who has been named by the last witness, some short time ago applied to me to institute experiments with that material. We made some slight experiments twelve months ago, and we failed in realising either our expectations or his. *These experiments were not conducted under his inspection.* The matter lay over till the last six weeks, and then hearing more about it and that some people were using it, I sent immediately for Mr. Routledge and asked him whether he would come over to my place and go through the experiments himself. He did so, and as far as producing a pulp from Spanish grass is concerned, he perfectly succeeded. He makes a pulp which can be mixed with other material, and he makes a pulp which can be converted into paper alone at his own mill."

Mr. John Carlisle, a partner in the firm of Messrs. Charles Potter & Co., Hollin's Mills, Over-Darwen, in reply to Question 1377—Have you yourselves expended any money in experiments?—replies: "We have; we have expended from 3,000*l.* to 4,000*l.* on various experiments, chiefly on sparte or Spanish grass. Question 1392—With success or not?—No satisfactory success; our own experiments *failed*; we then obtained the assistance of a French gentleman, *a practical paper-maker and chemist.* He conducted a great many experiments upon sparte, but they led to no useful result. Question 1393—Is that recently?—So far back as 1856. Question 1394—Have you tried it since?—No."

This firm of Messrs. C. Potter & Co. are now using between 40 and 50 tons weekly under the process taught them by the pursuer.

It was only after much anxiety and labor, and with a very considerable outlay of capital during several years, that the pursuer succeeded in maturing and perfecting the process of treating esparto and reducing it to an absolute certainty: this process, which he then patented, is substantially that employed by all the trade using esparto in Great Britain up to the present time.

Mr. Charles Cowan, head of the eminent and well known paper-making firm of Messrs. Cowan and Sons, who was reporter to the juries of the Exhibition of 1862, when the pursuer was awarded a medal for the only samples of esparto paper and half-stuff exhibited, briefly explains the process in question, which he was enabled to do, his firm having been the first to commence using esparto in Scotland at their mills at Penicuik in the spring of the year 1861 under the instructions of the pursuer.

The reporter states: "Numerous patents have, as might naturally be expected, been taken out for the treatment of this plant. Those by Mr. Routledge would appear from the increasing employment of this material to be the most useful, effectual and economical. Judging from the specimens of paper exhibited by Mr. Routledge, manufactured by him at his mills at Eynsham, near Oxford, exclusively from esparto, as well as from the other specimens of paper manufactured at various other mills *employing his process* in which esparto is used as a blend with the ordinary rag material, the results are very satisfactory, demonstrating that a new material has at length been brought into use, meeting this long-desired requirement both as regards quality and economy.

One satisfactory feature in Mr. Routledge's process is the fact that no material alterations in existing machinery or appliances are required; no higher pressure boiling in expensive vessels is necessitated; the silica always more or less combined with and coating raw fibres, is got rid of, and the gummo-resinous matter neutralised, permitting the fibres to be eliminated and drawn out by the ordinary pulping engine, as now practised with rags. The assurance of a successful result appears to be dependent on the proper adjustments of the proportions of the chemicals employed: this secured and the process is extremely simple; the issue appears to be reliable, and what is of no little importance invariable and constant."

Rags! give us rags! more rags! was the cry of the paper-makers until the year 1861, when the American war—immediately following the repeal of the excise duty on paper which had the effect of enormously stimulating consumption—threatened a cotton famine, which obviously and necessarily would re-act on the already rapidly rising rag market. The paper-makers became alarmed, and naturally apprehensive of experiencing extreme difficulty in procuring an adequate supply of material for their requirements, or at least deeming it only prudent to endeavour to provide for such a grave contingency, were only too happy to welcome the advent of a new raw material (which

having passed the experimental stage was offered to them by the pursuer upon what was *then* deemed by them to be equitable and liberal terms), proved to be both a practical and a commercial fact, promising to relieve them from their embarrassment and difficulties. Esparto thus introduced rapidly entered into consumption and may now be said to be universally adopted in the trade, the importations which did not amount to 1,000 tons in the year 1860, having risen to upwards of 51,000 tons in the last year of 1865, and are still increasing, and it is undeniable that without the introduction of esparto fibre by the pursuer the paper trade of this country would have been most seriously compromised.

Until the introduction of esparto, with the exception of straw, rags had from time immemorial been exclusively employed for the manufacture of paper ; this generic term—rags—being held to comprise such partially prepared materials as the waste of cotton, hemp or flax, and gunny bagging or jute. All these materials however, not excepting straw, require a far more complex system of treatment than esparto. Rag material, for instance, must first be carefully sorted, as the quality and price of the various descriptions vary from 5*l.* to 40*l.* per ton ; they must then be cut, dusted and willowed before boiling ; then washed, converted into half-stuff or stock, bleached and pulped, before the finished sheet of paper results. Straw also requires sorting, cutting, winnowing and then boiling in closed vessels with considerable pressure of steam, and with highly concentrated alkaline solution before bleaching. Esparto is merely roughly sorted to remove roots from careless collection, and is then without cutting transferred to the boiling pans, where less time is absorbed than for either rags or straw; it is also more readily converted into pulp and bleached, and requiring less power for conversion, an increase output of some 20 to 30 per cent is attainable, without involving any additional outlay of capital ; the resulting paper is of good quality, evidenced by the fact that there is now hardly a paper mill in the kingdom where esparto is not employed.

In describing more minutely the process of treatment for esparto, the preliminary sorting may be omitted, as this operation, especially when printing or finer qualities of paper are manufactured, must be more or less carefully performed with all classes of raw material to preclude the presence of foreign or extraneous substances which would otherwise cause blemishes or spots in the paper. As previously remarked, esparto does not require cutting, but is packed in the boiling pans and subjected to from four to six hours' active boiling in alkaline leys, to decompose the gummo-resinous and coloring matters, which after the boiling process is concluded and the waste or spent leys drawn off, are still further removed by a subsequent rinsing in the same vessel. The fibre is then taken to the washing and bleaching engines and there rapidly converted into half-stuff or stock, ready for furnishing to the beater or pulping engines for reduction to paper pulp. The subsequent processes being precisely similar to those employed for rag material.

The substantial differences between the treatment required for esparto and rags consists more especially in the careful and proper adjustment of the chemical ingredients employed.—this being absolutely essential to ensure a successful result, as unlike rags, which merely require the grease and other extraneous matter contracted by use and wear to be saponified and neutralised, which is effected by a similar process of boiling, but with weaker alkaline leys, which would be insufficient to act upon esparto,—as the fibres of esparto boiled with them, however extended the boiling operation might be, would still remain harsh, intractable, and unsuitable for conversion into half-stuff or stock suitable for fine papers ; and on the other hand, if the leys were too powerful or too concentrated, and the proportions not carefully observed, the esparto would be reduced to pulp and the waste enormously increased.

The success therefore of the process, it will be remarked, consists mainly in the proportions of the alkaline leys employed in the boiling process ; and in making these leys (as introduced by the pursuer) the quantity of soda is proportioned by actual weight to the quantity of esparto to be treated,—from 9 to 10 per cent of the former being employed. In the early introduction of esparto, the ordinary soda ash of commerce, or crude carbonate of soda, was used. This being tested and its strength determined, the proper quantity is gradually added to water contained in a large iron vessel termed a ley pan, the water being kept at the boiling temperature by a jet of steam. When the soda is dissolved, so much quick or caustic lime is gradually added thereto as would abstract the carbonic acid combined with the soda, which, having a greater affinity for the lime than for the soda, would combine with the former, leaving the soda nearly caustic. But as the presence of free or caustic lime, either in solution or mechanically in the leys, would have a most prejudicial effect on the esparto by hardening it, and thus rendering it difficult to obtain that very minute sub-division of the ultimate fibres necessary to secure a good quality of half-stuff, the quantity of lime was confined within such limits as to ensure some portion of the soda salt being left in the carbonated or mild form, by which means should any caustic or quick-lime be accidentally carried forward with the boiling ley when the same was run over the fibre placed in the boiling pan, the same would be neutralised and such lime rendered innocuous.

The introduction and extended use of esparto have induced the chemical manufacturers to embark largely in the production of caustic soda which, carefully prepared, is free from the presence of any lime, and by employing this preparation of soda in proper proportions, the paper-maker attains the same result and is relieved from the troublesome and expensive process of preparing his leys at his own works saving both coal and labor, and latterly (a point of no small importance), since the increased use of esparto has tended to induce an outcry against the "fouling of streams," little or no lime is now run into the stream, which generally it was the practice to do; moreover this form of soda dissolving very rapidly in a smaller quantity of water or spent leys, which carbonate of soda combined with lime in ley making, as before described, will not do, he is enabled to use his leys again and again by the addition of the proper proportion of soda, until they have become too highly charged with coloring matter for further use.

The boiling process may be conducted in any form of boiler, bearing in mind the principle that the fresh surfaces must be exposed, and that to ensure this result the fibre must either be moved through the ley, or on the other hand the ley passed over and through the fibre. This is most conveniently done in a stationary circular boiler from 6 to 10 feet diameter, with a false bottom perforated with small holes called a vomiting or bowking kier, because attached to the false bottom and standing in the centre of the pan is a pipe from 6 to 8 inches diameter, up which, steam being admitted under the false bottom, the boiling ley is forced in a continuous stream or fountain, which being deflected by a plate or bonnet, as it is technically termed, superimposed, passes over and through the fibre previously packed in the pan, until the process is completed, when the ley is drawn off, pumped up for use a second time or oftener if desired, or allowed to run away and the pan filled with fresh water, which rinses the fibre in the pan, carrying away a further quantity of a coloring matter disengaged, so to say, by the previous boiling; revolving pans or vessels are sometimes used, either spherical or cylindrical, but these are costly in construction, require motive power to turn them, and occupy considerable space; preference is therefore generally given to the form of boiling pan first described.

It may be remarked that two tons of raw esparto are required to make one ton of white printing paper, the waste or loss therefore being 50 per cent. From 30 to 35 per cent of this in the form of extractive and coloring matter is disengaged and carried away by the action of the boiling leys. After rinsing, the resulting fibres are transferred to what is termed a washer engine, and while there, are opened out and reduced to half-stuff; a further portion of coloring matter is discharged when desired, or when the water runs clear the half-stuff is drained down, and either in the same or a similar engine bleaching powder in solution is added, and circulation kept up until the desired pitch of color is attained, when diluted oil of vitriol is added, which promotes the action of the bleaching salts; or the same effect may be attained by introducing a jet of steam into the engine and warming the contents; the resulting bleached half-stuff or stock is thereupon drained in any convenient manner, and is then fit to be transferred to the beater or pulping engine, to be converted into paper stuff and run over the paper machine to produce the finished sheet of paper, or the stock thus produced may be added as a blend in any desired proportion to rag pulp.

The quantity of bleaching salts required for the foregoing operation is very far in excess of that employed for white rags, in round numbers as 10 to 1. The quantity of soda also for making the leys for the boiling process is as 7 or 8 to 1; and it was only after most carefully recorded experiments extended over a series of years, conducted on a practical working scale at his own mills and after many and repeated failures, that the pursuer succeeded and was enabled to lay down an exact formula which, carefully followed, success is certain and constant. It may be truly alleged that there is no novelty in the *ingredients* employed in the pursuer's process, but it is equally true that it is not the ingredients themselves, but the proportions and the manner in which they are employed, which ensures a successful result, and it now only remains to repeat that no white paper from esparto fibre was ever commercially made or sold in the trade until the pursuer introduced his process—and that process so introduced is now that substantially carried on at the defender's works at Dalmore.

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This statement was drawn up to serve as evidence on a trial I was compelled to bring against Mr. Sommerville for non-performance of an agreement for the use of my patent, which trial resulted in my favor.

The paper on which this is printed was made at my mills from esparto exclusively, and the fact is that no printing paper whatever is now made in England without esparto entering more or less into its composition,—the present importations of esparto amounting to upwards of 130,000 tons annually and its cost being more than doubled since I introduced it to the trade in 1861.

*January* 1875. T. ROUTLEDGE.

## *Proceedings of the Chief Commissioner of Mysore, General Department, 26th November* 1875.

**From Her Majesty's Secretary of State for India, To the Government of India, No. 25, dated the 6th May 1875.**

With reference to my despatch dated February 18th (No. 7), 1875, I now transmit copies of a further communication from Mr. Routledge on the subject of the cultivation of the young and growing stems of bamboo for paper stock. This report contains all the suggestions which Mr. Routledge's present knowledge enables him to make with reference to the cultivation of bamboo for the object indicated, as well as details of his process of treating bamboo for the manufacture of fibrous paper stock.

2. If Mr. Routledge's opinion as to the value of this material for paper-making is well founded, his discovery may prove to be one of very great importance to the trade of India, and I request that Your Excellency will cause investigations to be made by the Forest Department as to the best species of bamboo for the purpose, and consider in conjunction with the Inspector General whether it may be expedient to establish experimental plantations in suitable localities with a view of ascertaining how far its cultivation may be of a remunerative character.

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From T. Routledge, Esq, To the Under-Secretary of State for India, dated the 26th February 1875.

I have the honor to acknowledge the receipt of your letter of the 18th February, and in conformity therewith beg to submit the following statement for the consideration of Lord Salisbury :—

1*st*.—Bamboo considered as a material for paper.

2*nd*.—Details of my process for the manufacture therefrom of fibrous "paper stock."

3*rd*.—Statement shewing the cost of producing the paper stock from bamboo.

It may be well perhaps that I should state that, owing to the extremely bulky nature of bamboo especially when dried, it could not possibly be brought to this country in its raw condition and, as correctly stated in your letter, the paper stock must necessarily be prepared where the plant grows.

It may be considered that the factory I propose, calculated to treat 100 tons bamboo weekly, is somewhat large. This however is necessitated by the peculiarity of my process requiring a large number of vessels with other appliances connected, as my system of preparing the stock cannot be efficiently or economically conducted upon a smaller scale of operations.

So far as the sale of the resulting stock is concerned, should the Government of India be induced to erect an establishment, the Ford Works Company Limited, which I represent as Managing Director, would be ready to arrange to purchase all stock manufactured.

I have merely now to add that I shall be happy to furnish any further details which may be desired by Lord Salisbury, or to attend any meeting appointed in the event of any personal explanation being desired by His Lordship.

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*Bamboo considered as a material for paper.*

Of all the fibre-yielding plants known to botanical science, there is not one so well calculated to meet the pressing requirements of the paper trade, both as regards facility and economy of production and the quality of the "paper stock" which can be manufactured therefrom, as bamboo.

The bamboo is indigenous in India, where in some districts indeed it forms impenetrable jungles: grown under favorable conditions of climate and soil, there is no plant which will give so heavy a crop to the acre—no plant which demands so little care for its production and continuous cultivation.

The rapidity of the growth of bamboo is unequalled. At Ghezereh, the gardens of the Khedive at Cairo, it has been known to grow 9 inches in a single night. At Syon House, the Duke of Northumberland's, are stems of *Bambusa gigantea* which have attained the height of 60 feet in 12 weeks, and I have made "paper stock" from a stem of *Bambusa vulgaris* sent me by Dr. Hooker, which as measured by the gardener in the Palm House at Kew Botanical Gardens, grew 3 feet in one week, reaching the height of 24 feet in 7 weeks.

For the purpose of manufacturing "paper stock" from bamboo by my process, the *young and growing stems* alone are available or suitable, and they must be cut down before the cellulose or cellular

tissue has become matured and converted into woody fibre. As a comparative illustration of this stage of growth, I may cite for example asparagus, the young and green stems of which are used as a succulent vegetable for the table, but which a few weeks further growth convert into hard woody fibre. The asparagus indeed has its parallel in the *Bambusa edulis*, the young stems of which are eaten and considered very nourishing.

The bamboo being an endogenous plant (that is to say, the fibres growing from inside) the stems do not require the elaborate preparatory manipulation to separate the fibre from extraneous or woody matter which in exogenous plants (*i. e.*, fibre growing from or on the outside) must be removed, as it is only the true fibre which is usable for textile manufactures. Such plants known to commerce as flax, hemp, jute, rhea, &c., &c., after having become mature and being dried, have to undergo a process of retting or steeping followed by starching or heckling to separate the true fibre from the woody stem and bark to which it is attached ; whereas the stem of the bamboo consists of fibre or fibrous tissue alone, combined with the mucilaginous gummo-resinous and other extractive matters common to all vegetable growth.

It will be obvious that to ensure a regular and continuous supply of material for a factory, plantations of bamboo would have to be formed as for sugarcane, or like osierbeds in this country. I mention the latter as in order to stimulate a rapid aqueous or sappy growth, as also to provide for the dry season, a system of irrigation would be necessary, such a system indeed being now practised with the sugar-cane in Egypt, Spain and other countries.

In plantations of sugar-cane, to which the bamboo somewhat assimilates in character and growth, it is necessary in order to ripen the canes and develop the saccharine, to allow free ventilation to the growing plant, and therefore the ground is not fully occupied. This would not be the case with bamboo, which should be planted and grown closely together to favor the stems shooting upwards, as practised with flax, hemp, jute, &c. Where fineness of fibre is desired, the stools or roots once established, a systematic and regular cutting or cropping would ensure the stems being all cut down simultaneously by sections or beds in succession when they had attained a height of from 10 to 12 feet. Several croppings annually would thus be obtained.

The sugar-cane from the time of planting to cutting takes from 9 to 11 months to grow and mature, but even thus grown the produce of cane (ready dressed for the mill) generally ranges from 25 to 35 tons to the acre. I have known it to exceed 40 tons, and allowing several cuttings annually for the bamboo, it may fairly be assumed that at least this latter quantity would be obtained from each acre.

A plot of ground 208 feet square is one acre. This divided into 12 beds, each 96 feet long × 26 feet wide, with 12 paths 8 feet 8 inches × 96 feet, and one central intersecting road 208 feet long by 16 feet wide, leaves a space for planting roots or stems equal to 2,496 feet or 29,952 feet in the 12 beds. Allowing the stems to be 2 feet apart, we have 7,488 stems, which at 12 pounds each=40 tons per acre.

The stem of *Bambusa vulgaris* I have referred to, grown in the Palm House at Kew, which was of an average size, weighed green 1½ pounds per foot run ; the stem of the *Bambusa gigantea* is proportionately heavier, and although no doubt by denser growth, induced by frequency of cropping or cutting, the stems even in these large varieties of bamboo would decrease in size or diameter, still an equal tonnage to the acre would be produced and, as remarked, with a finer quality of fibre and longer joints or internodes.

The green stems of the bamboo cut growing, as I propose to use them, contain from 60 to 75 per cent of moisture. The assumed crop therefore of 40 tons green stems would result in 10 tons dried ; and as the dry stems yield 60 per cent of unbleached fibrous paper stock dried and baled up in merchantable condition (as treated by my process), we have a yield of 6 tons merchantable fibre per acre, an enormous product as compared with any other fibre with which I am acquainted ; the yield of flax being computed as from 5 to 6 cwt., of hemp 7 cwt., and jute 5 to 6 cwt., of fibre to the acre, rhea and cotton being much less.

To economise the cost of carriage of raw material to a central factory, the plantation should be formed as near as convenient thereto ; and I propose to return to the growing crop, mixed with the water of irrigation, the spent or waste leys containing the extractive matter taken from the bamboo in the process of manufacture (amounting to 40 per cent by weight) as manure, thus maintaining fertilisation.

I have not referred to the system to be adopted for forming the plantation, as the best means of propagation will no doubt be well understood in India. Planting out eyes or rhizomes or cuttings from the roots is, I believe; the plan now pursued, but I should imagine that cuttings from the top joints of

the stems as customary with sugar-cane should succeed equally well with bamboo. Raising from seed would be a somewhat tedious operation, as no doubt from 2 to 3 years would be required to form strong roots or stools.

The choice of the variety of bamboo for planting would be governed by local conditions, it being desirable to select that plant which grows the quickest and affords the greatest length of space between the joints or internodes, in order to obtain long and clean fibre with a minimum of waste. The varieties referred to I know will produce an excellent quality of paper stock, although others no doubt exist equally suitable for the purpose.

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*Details of my process for treating bamboo for the manufacture therefrom of fibrous paper stock.*

The essential point in my process for treating bamboo for the manufacture of paper stock consists in operating upon the stems of the plant when young, and preferably when fresh as when cut and collected.

Brought therefore to the central factory in this condition, the stems are passed through heavy crushing rollers in order to split and flatten them, and smash or crush the knots or nodes, the flattened stems being then passed through a second set of rollers, which are channelled or grooved in order to split or partially divide them longitudinally into strips or ribands, which being cut traversely by a guillotine knife or shears are delivered by a carrier or automatic feeder wherever required.

When green and fresh the stems contain from 60 per cent to 75 per cent of aqueous sappy mucilaginous and extractive matter, much of which is expressed by the crushing, and the fibrous mass being thus disintegrated is more readily acted upon in the succeeding processes.

If desired, the crushed stems may be dried and stored, but in such case the drying must be very carefully conducted and watched to avoid destructive fermentation.

It may be well to explain that the ordinary system of preparing fibres or fibrous materials, as also rags for paper-making is after sorting, cleaning and cutting (if necessary) to subject them to boiling with alkaline ley, the boiling being followed by washing in what is termed the rag or breaker engine, during which the material is disintegrated or reduced into "half-stuff" or stem-pulp, which is then bleached and converted into paper.

My process differs from the foregoing, inasmuch as my object is to produce a fibrous or tow-like stock and not half-stuff or pulp, such stock retaining as far as possible the normal or natural condition of the ultimate fibre freed from extraneous matter (that is, deprived of extractive and coloring matter). Such stock being then dried is baled up in a compact form like jute or cotton for transport, and may be kept an indefinite time in warehouse or store without injury, and when received by the paper-maker requiring only soaking down and bleaching to fit it for pulping and conversion into paper.

The stems of the bamboo preliminarily treated as described are now in a condition to be submitted to my boiling process, which consists in a peculiar continuous and methodical system of boiling or steeping in alkaline baths or leys (composed of a solution of caustic soda) with subsequent washing or rinsing in a battery or series of 16 or 20 vessels, such vessels being so connected together by pipes or channels furnished with the necessary valves or cocks that communication between the individual vessels can be regulated as desired, and thus the heated leys or other liquors may be conducted from vessel to vessel of the series in succession and used again and again until neutralised or exhausted, fresh leys being methodically supplied until by degrees the extractive matters combined naturally with the fibres have been reduced sufficiently soluble, when hot water for washing or rinsing is then in the same continuous manner run successively over and through the fibre, and the coloring and extractive matters rendered soluble by the previous boiling carried forward and discharged, leaving the residuary fibre sufficiently cleansed.

The boiling and succeeding washing processes being finished, and the material in one of the vessels of the series in its turn or regular succession being sufficiently treated and cleaned, a final cooling water is run on and off the fibre, which is thus drained and the contents of the pan or vessel emptied into a truck running on a railway by which it is conveyed to an hydraulic press and the remaining moisture extracted; the dry or semi-dry fibre is then submitted to the action of a willow or devil, which disintegrates and converts it into a tow-like condition, when it is dried by a fan blast with heated air and finally baled up in another hydraulic press for storage or transport.

By this system of boiling in continuity until all the effective alkali in the leys is exhausted or neutralised, I effect an economy of from 30 to 40 per cent of soda, and by the following washing without removing the fibre from the pans or vessels I thoroughly cleanse and purify the fibre, preserving

its strength and retaining in a great measure its normal structure. I also effect a considerable saving in fuel for boiling, less water being required for boiling and washing, and the labor is also less than on the ordinary system.

The boiling and washing vessels are constructed of iron of a capacity to contain one ton of raw material, say 8′ 6″ square by 5′ 6″ deep: they are fitted with perforated false bottoms, having a vertical pipe attached thereto; and boiling is induced by injecting steam under the false bottom, by which means a continuous stream with a vomiting or fountain action of the heated leys over and through the material under treatment is maintained.

The vessels are also furnished with movable covers, and the requisite pipes and fittings for the supply of steam, hot and cold water, and ley; as also to run off and discharge the spent leys and wash waters as desired.

The minuter details of my process and apparatus for treating the raw fibres for "paper stock" are fully described in my several patents, the only variation so far as bamboo is concerned being the preliminary preparation of the young stems; the other portions of the process being substantially the same as in daily operation at Ford Works for the treatment of esparto and other fibres.

I have now only further to remark that the plant required to fit up a central factory to treat bamboo upon an economical and practical working scale would consist of a battery or series of 20 boiling pans with the other necessary adjuncts and machinery, steam engines and steam boilers. Such a plant being adequate for the manufacture of 100 tons bamboo weekly, producing therefrom say 50 tons of merchantable paper stock.

The cost of such plant and machinery would amount to about £13,000 ready for shipment, to which would have to be added the carriage and cost of erection, with the necessary buildings, which however would be of a very simple and inexpensive character; and I estimate that £7,000, added to the £13,000 cost of plant, should suffice for the establishment and working of such an undertaking; and assuming £5,000 necessary for extraneous expenses and cost of forming plantations to supply the factory with bamboo, £25,000 in all should prove amply sufficient.

I do not feel myself competent to determine what quantity of land would be required for a plantation to supply such a factory which would absorb 100 tons daily, say 400 tons green stems weekly; but with the assumed yield of 40 tons to the acre, with only once cropping, 500 acres should be ample. I cannot however think that such an extent of plantation would be required.

In the accompanying statement shewing the cost of manufacturing paper stock from bamboo I have allowed ample margin, and I have only to add that I know of no other material which can at all approach it in economy of production, and I believe very few, if indeed any, so far as regards quality. There cannot therefore be the slightest doubt as to its commanding a ready sale with large profits.

T. ROUTLEDGE.

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*Statement shewing the cost of manufacturing paper stock from bamboo, 100 tons weekly being treated.*

To supply a factory with 100 tons dry=400 tons green stems weekly at 40 tons green bamboo per acre=10 acres weekly required.—Allowing 5 shillings per ton green stems delivered £10 per acre.

Although the dry stems yield 60 per cent stock, 50 per cent only taken, allowing wastage:—

| | £ | s. |
|---|---|---|
| 8 tons green stems at 5 shillings=2 tons dry stems at 20 shillings .. | 2 | 0 |
| Fuel for power boiling and drying stock { 2 tons bamboo .. / 1 ton coal at 15 shillings=3 tons wood at 5 shillings { 2 tons coal at 15 shillings } | 1 | 10 |
| Caustic soda for boiling, estimated at £20 per ton, 60 per cent .. .. | 4 | 18 |
| Labor unskilled 20 shillings; skilled labor and foreman 7 shillings.. . | 1 | 7 |
| Bale cloth (gunny) and hooping .. .. .. .. | 0 | 10 |
| Incidental stores, Petty's, Insurance .. .. .. .. | 0 | 10 |
| Repairs, depreciation .. .. .. .. .. | 0 | 10 |
| Freight, England 75 shillings, Insurance 10 shillings, charges 10 shillings .. | 4 | 15 |
| (£2,500 per annum) Management and margin .. .. .. | 1 | 0 |
| | 17 | 0 |
| Royalty .. .. | 1 | 0 |
| | 18 | 0 |

The above 100 tons dry bamboo will give 50 tons dried merchantable stock, the present value of which is at least £24 per ton, that being the lowest price which chemically prepared wood pulp now commands in the market. This shews a profit of £6 per ton, or on 50 tons £300 per week=£15,000 per annum. There is therefore a very ample margin to cover all likely contingencies.

T. ROUTLEDGE.

*Memorandum by* D. BRANDIS, *Inspector General of Forests, dated 8th July 1875, on the cultivation of bamboos for paper stock.*

This is a matter of great importance, and there can be no doubt that the young growing stems of many species of bamboo will make good paper; but it seems to me doubtful whether the article can on a large scale be produced at a sufficiently low price to enable paper manufacturers to use it. Nevertheless, the suggestions made by Mr. Routledge deserve great attention, and should be carefully studied by forest officers. It will be noticed that only the young growing shoots are wanted, not the mature stems, and unfortunately for the paper manufacturer a clump of bamboos consists of a large number of mature with only a few young growing stems.

2. Thus in the case of the large Burma bamboo (*Bambusa gigantea*), I suppose that a clump might, under ordinary circumstances, produce say 8 shoots annually, which at 50 lbs. each would yield 400 lbs. green or 100 lbs. dry material. A plantation of uniformly good land might at the outside bear 40 clumps of this kind per acre, which would yield 4,000 lbs. of dry material. Mr. Routledge estimates the requirements of a machinery so as to make its working pay, at 100 tons of dry material per week or 5,200 tons annually, and thinks that this may be yielded by a plantation of 500 acres. If the above estimate is approximately correct, an area of 2,912, or say 3,000 acres, will be required, under the most favorable circumstances, to produce an annual yield of 5,200 tons dry material.

3. In the vicinity of a large town like Rangoon or Calcutta, such a plantation might, if land could be got, possibly be a profitable undertaking; the green shoots would, at five shillings per ton, yield about 35 shillings per acre* annually, less cutting and carriage, and the mature bamboos, which would be produced at the same time, would sell readily. The thorny bamboo (*Bambusa arundinacea*) and some of the large bamboos of Sikkim and Assam, as well as the large thornless bamboo of the Dehra Dún and the outer hills of the North-West Himalaya would probably furnish a yield similar to that of the *B. gigantea*. Such plantations, however, could only be made on good soil with plenty of moisture. The smaller kinds,—such as the kind with yellow and striped stems, of Western India (*Bambusa vulgaris*), the common Indian bamboo (*Dendrocalamus strictus*), or the two Bengal species (*Bambusa Balcooa* and *Tulda*) which surround all villages near Calcutta,—would probably furnish a much smaller yield, though the number of clumps per acre would be greater, for the stems are much shorter than those of the larger kinds.

4. It may be thought that the production of young shoots might be stimulated by cutting out the mature stems more freely. On this subject experiments should be made, but they will require considerable care. My experience hitherto does not lead me to expect any beneficial result from such a treatment; on the contrary, whenever I have seen bamboo clumps overcut, the result was a scanty crop of young shoots, and the young shoots themselves were poor, that is thin and short. Bamboos do not grow up like oak coppice or osierbeds, where you can cut all shoots at once and get a complete fresh crop after every cutting. When bamboos grow up from seed, it takes a considerable time until regular clumps are formed. After the old bamboo has seeded and died in a forest, the ground gets in the first instance covered with a close thicket of slender stems, which continues for several years until the rhizomes get strength to produce full-sized stems, and these gradually form into clumps or clusters. Plantations, however, would probably be raised from cuttings, and not from seed. But under all circumstances, bamboo clumps seem to require a considerable number of vigorous older stems in order to produce a good annual crop of young shoots. This, however, may be different in different species, and systematic experiments should be made in order to ascertain whether the production of young shoots may not in some species be stimulated by cutting out a larger proportion of the older stems.

5. So far regarding plantations. The question naturally suggests itself whether natural bamboo forests,—such as those in Sikkim and Assam, the masses of the thorny bamboo (*yakatwa*) on the Hline river and on other rivers in Pegu and Tenasserim,—might not furnish the material required by the paper manufacturer at a sufficiently low rate. Fresh shoots of the bamboo are heavy; they can neither bear long land carriage, nor will they generally float by themselves. If they are required in the mill in a fresh state, then they must be brought down on boats or bamboo rafts. The statement shewing the cost of manufacturing paper stock from bamboo, which is appended to Mr. Routledge's letter of the 26th

* NOTE.—400 × 40 = 16,000 lbs. = 7 tons of green stems, the estimated annual yield per acre.

February, only allows 5 shillings per ton (2,240 lbs.) of green material. It seems doubtful whether this rate can be increased, for the cost of fuel, 5 shillings per ton (28 maunds) of firewood, is under-estimated in this statement. Certainly 5 shillings per ton of fresh bamboo shoots would not pay for carriage from a distance, and 2 tons of green stems, if allowed to mature, would in most cases fetch a great deal more in the shape of bamboos than five rupees. It is possible that paper manufactories near Calcutta might occasionally be supplied from the village bamboo groves in the vicinity with a certain quantity of young shoots at sufficiently low rates; but, as a rule, the only chance of producing this material cheap enough would be in compact plantations close to the mill, and this is what Mr. Routledge himself recommends.

6. In conclusion, it may not be out of place to draw attention to a tree which is grown largely in Japan as coppice wood on a short rotation, similar to osierbeds, and which furnishes a large proportion of the paper stuff used in that country. This is the Paper mulberry (*Broussonetia papyrifera*: "Forest Flora of North-West India," page 410). This tree appears to accommodate itself readily to different conditions of climate; it thrives in Western Europe, on the South Sea Islands and in Siam, and there seems every reason to believe that its cultivation may succeed in North-West India. I know few trees more promising (in a suitable climate) for the supply of paper stuff on account of its free and rapid growth and the abundance of its fibre.

*8th July* 1875. D. BRANDIS.

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Since writing the above, I have received a communication direct from Mr. Routledge, dated Sunderland, 11th June, from which I extract the following information bearing upon this important subject:—

* * * * * *

I propose to cut the young stems at from 10 to 16 feet high—while they are in the vegetable stage and full of sap, the fibre then being in the best condition for paper-making and readily and economically treated,—older, the stem becomes too woody, and very costly and difficult to treat, indeed will not produce soft and strong fibre.

* * * * * *

I enclose sample of fibres I have produced from stems sent me dried from Demerara; these were cut young specially, but were *even then* too old for all the stems (some 18 feet long) to be used. I only took the four or five top joints and stems that had thrown out *no* lateral branches.

In Cuba, sugar-cane has been cropped from the *same* stools or roots upwards of 20 years, and if treated as sewage rye grass in this country, that is irrigated *or* cultivated in a naturally damp situation, I imagine a continuous, or nearly continuous, successive cropping or cutting might be ensured also with bamboo.

* * * * * *

All points carefully considered, I can only conclude that the "bamboo" must be regularly cultivated for the purpose like sugar-cane, in plantations formed for the purpose, concentrated near the factory where the plant has to be treated and the manufacture carried on. To economise the cost of carriage such factory, moreover, must be located near a railroad or navigable river or canal. If a suitable situation can be found, meaning a damp soil, so much the better; if not, irrigation must be resorted to.

* * * * * *

Any attempts to make paper or paper stock from the *old* stems will fail; they cannot indeed be converted into *long fibre*, but only into pulp, and this at great cost for caustic soda and *high pressure* boiling; and when reduced to pulp, requiring six times the quantity of bleach for bleaching, with a yield of 30 per cent only as compared with 60 per cent from the stems treated by my process.

* * * * * *

We are using at these works 100 tons esparto weekly. Its cost, reduced to the same condition of unbleached "paper stock" as I propose for bamboo, is greater by £4 to £6 per ton than I estimate bamboo *stock* can be laid down in England for. Of course, this is dependent mainly upon the cost at which the young bamboo stems can be laid down at a factory, and upon the assumption that Rupees 2, say 5 shillings per ton, would cover this item. The main point, in fact, resolves itself into whether the bamboo can be cultivated, as I assume, in India, either naturally in suitable localities, or artificially by irrigation.

I am growing in my hot-house stove from *seed* sent me by Lord Salisbury, *B. gigantea, arundinacea, stricta, &c.*, and some smaller varieties of which I procured root stools in a late visit to Paris. I see clearly that *from seed*, although my plants are growing well, a long while must elapse ere workable stools are produced, and that for successful cultivation, plants or stools must be formed from cuttings from stems planted under favorable conditions of soil, locality, &c., &c.

*21st July* 1875. D. B.

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## *Proceedings of the Chief Commissioner of Mysore, General Department, 26th November* 1875.

From the Under-Secretary to the Government of India, Department of Revenue, Agriculture and Commerce, To the Chief Commissioner of Mysore and Coorg, No. 4—104, (Fibres and Silk), dated Simla, the 26th August 1875.

In continuation of the Resolution recorded in this Department, No. 19—834, dated the 22nd ultimo, I am directed to forward copy of a note by Mr. H. M. Rogers, B. C. S., on the subject of the cultivation of bamboos for paper stock which is referred to in the Despatch from the Secretary of State, No. 7, dated the 18th February 1875, read in the preamble of that Resolution.

*Note on Bamboo by* Mr. H. M. Rogers, B. C. S.

Mr. Routledge wants the bamboo in a young state before the woody fibre is completely hardened. He also says it is liable to rapid fermentation and will not bear carriage in the early stages of its growth. It therefore appears that to ensure a constant and regular supply of bamboo under the required conditions, it must be specially cultivated for the purpose.

The whole lower slopes of the Himalayas abound in a small bamboo commonly called *ringals*,—many of the desert forests of Central India are principally composed of bamboos of a larger species; but these places are inaccessible and ill adapted for the sites of manufactories. Moreover I think if the speculator were dependent on the wild growing material, he would soon exhaust the supply in his immediate vicinity; and although it would cost him little or nothing except for cutting and carriage, yet the search over scattered areas for bamboos exactly suited to his requirements and the transport of them in small parcels to his mill would soon be found to cost more than the cultivation of the bamboo would in a more civilized and accessible region where it might not be found wild.

No case of the bamboo being cultivated has ever come under my cognizance.

It is usually grown throughout the North of India, here and there, in small *thans* or patches, generally close to a village; each *than* is practically only the accretion on one originally planted stool. It is rather commoner in Lower Bengal, as there it forms a principal part of the patch of dense jungle found in the neighbourhood of nearly every village site; but I know of no place where it has been planted over considerable areas, and I doubt if any trustworthy information of the probable out-turn per acre could be obtained. The best chance would be from Oudh, for there each village chieftain planted a mighty bamboo-fence round his village to protect him from robbers and from the Government tax collectors. This formed a matted and tangled thicket impenetrable to cannon shot, and the inhabitants popped in and out through holes, like wild boars through a corounda bush.

The superficial area of bamboo thicket round some of these forts amounts to several acres and a rough estimate might be made of their contents. But these fences are gradually disappearing now that the Deputy Commissioner has taken the place of the chukkadar.

My impression is that if the bamboo were cultivated for fibre, it would *grow almost anywhere in India*. Small experiments might be made in any public garden; but of course, as the question involved refers to the younger shoots and not to the matured cane, which is the only product at present in demand in India, it would not be worth while to make experiments on a large scale, unless preparations were previously made either by Government or private speculators for the immediate utilization of the material.

The subject might well be recommended to the consideration of the officers in charge of jails. There, all ready, land, labor and considerable mechanical appliances are at the disposal of intelligent and energetic superintendents.

From the Conservator of Forests, Mysore and Coorg, To the Officiating Secretary to the Chief Commissioner of Mysore, General Department, Revenue—Forests, No. 1980, F., dated Bangalore, 12th November 1875.

Referring to the correspondence ending with your docket No. 4869—897 of the 23rd August last, subject—experiments for ascertaining the productive powers of the different kinds of bamboos, as stock for the production of fibre for the manufacture of paper,—I have the honor to report my suggestions thereon, and what has been done up to date, for the information of the Chief Commissioner.

2. I do not think that any of the Mysore or Coorg Forests could be looked to as sources of supply. They are too far from towns where the young shoots, even if had in sufficient quantities, could be

crushed by machinery; and the cost of carriage, if the shoots were crushed on the spot, would probably be too high to admit of such operations proving remunerative. But as I read it, the object immediately in view is to ascertain the productive powers of the different kinds of bamboos. In doing this I think we may attain this object and also arrive at some approximate idea of the probable cost of keeping up a regular supply, if the method of cultivation to be now proposed should prove successful.

3. What is wanted is, to grow the heaviest crop possible in the shortest time; in a locality whence the cost of carriage, to the place where the shoots can be crushed and the fibre dried and packed for England, can be reduced to a minimum. All things considered I think that this can be done better in the vicinity of Bangalore than elsewhere in the Mysore Province. The disadvantage of making the experiment near Bangalore would be the cost of land, but this I think will be but small compared with the advantages which the locality insures.

4. At the Forest Conference at Simla, a letter was read out from Mr. Routledge, in which he informed Dr. Brandis that young shoots 18 feet in length had been raised in Demerara, from root offsets in less than 2 years. A sheet of the paper manufactured in England from the fibre produced from these shoots was exhibited to the members of the Conference.

5. Mr. Routledge thinks that the bamboo as a fibre producer is well worth cultivation and that it would pay to cultivate it highly.

6. I would therefore propose that I be allowed to acquire for experimental purposes one or two acres of good land under a tank near Bangalore, and that after ascertaining all probable expenditure that may be necessary, I should submit an estimate for raising bamboos from root offsets and cultivating them in a manner similar to that employed in the cultivation of sugarcane. The estimate would not however provide for the cutting of the crop. If the experiment succeeds, the cost of cutting and transport to Bangalore can then be estimated for. It would then rest with others to determine whether the cost of crushing the succulent shoots at Bangalore and of the further operations for the production of fibre would pay or not.

7. The first crop having been taken the experiment should be continued so as to ascertain within what period a second crop could be raised, and also how many crops a single stool could produce with profit.

8. Roots of the various kinds of bamboos growing in Mysore would be obtained from the Forest Divisions and put down in different portions of the field. I have asked the Deputy Commissioner of Bangalore to let me know where I could obtain land and what the rent would be per annum.

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No. 6906—Genl. 1397, dated Bangalore, 26th November 1875.

Order thereon.—The Officiating Chief Commissioner desires that the experiment for the growth of bamboo as a fibrous paper stock should be made in the Government Experimental Farm at Bangalore, under the direction of the Superintendent, and in communication with the Conservator of Forests. A small extent of land will suffice for the purpose, and a careful report of the method employed in the cultivation, the cost of the out-turn, and other details interesting to the Home Manufacturers should be prepared by Mr. Harman.

T. CLARKE,
*Offg. Secretary.*

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## *Proceedings of the Chief Commissioner of Mysore, General Department, 27th November* 1875.

Extracts from the Annual Report by the Deputy Surgeon General, I. M. D., for the year 1874, relating to Meteorological Matters.

Climate and Seasons.

The principal meteorological peculiarity of 1874 consisted in an excessive rain-fall spread over more than the average number of days. The average rain-fall of the Province of Mysore is 35 inches. The table marginally noted indicates the exact amount of excess. The ordinary rain-fall at Chitaldroog is very small, in some years not more than 10 inches have been registered. The rain-fall of 1873 was below the average. Throughout Mysore generally a short but sharp hot season preceded the setting in of the rains of 1874.

| Districts. | Average Rain-fall. | Rain-fall of 1874. |
|---|---|---|
| Bangalore ... | 35 inches. | 56·580 |
| Túmkúr ... | | 61·71 |
| Kolar ... | | 40·41 |
| Chikballapur ... | | 48·53 |
| Mysore ... | | 90·50 |
| Hassan ... | | 47·57 |
| Shimoga ... | | 59·90 |
| Kadur ... | | 42· |
| Chitaldroog ... | | 34·89¾ |

The following table exhibits the general meteorological results duly corrected and reduced, as rendered at the Observatory of Bangalore, for the year 1874 and four preceding years :—

| | 1870. | 1871 | 1872. | 1873. | 1874 |
|---|---|---|---|---|---|
| Mean barometric pressure ... ... | 26·910 | 26·927 | 26·911 | 26·929 | 26·922 |
| „ Temperature of air ... ... | 72·8 | 72·9 | 73·8 | 72·5 | 71·9 |
| „ „ wet bulb ... ... | 66·2 | 66·2 | 66·2 | 64·2 | 64·5 |
| „ Observed extremes. Maximum ... | 84·2 | 84·2 | 82·8 | 84·1 | 83·3 |
| „ Observed extremes. Minimum ... | 64·5 | 64·7 | 64·3 | 64·2 | 63·4 |
| „ Humidity (saturation 100) ... | 73· | 72· | 72·6 | 70· | 70· |
| „ Maximum solar heat in vacuo ... | 133·2 | 132· | 128·8 | 134·1 | 132·5 |
| „ Minimum on grass ... ... | 61·5 | 61·2 | 62·1 | 61·3 | 61·6 |
| „ Depth of rain in inches ... ... | 39·255 | 29·058 | 39·911 | 29·111 | 56·580 |
| No. of days on which rain fell ... | 121 | 107 | 92 | 80 | 126 |
| * * | * | | | | |

From H. F. Blanford, Esq., Meteorological Reporter to the Government of India, To the Secretary to the Government of India, No. 98, dated the 19th October 1875.

I have the honor to acknowledge the receipt of your endorsement No. 69, giving cover to an extract from the annual report by the Deputy Surgeon-General, Indian Medical Department, for the year 1874, relating to meteorological matters.

The extract gives certain values of barometric pressure, temperature, &c., stated to be the means of the year. As these refer to Bangalore, which is one of the observatories established by Mr. Pogson, I am probably justified in assuming that the figures represent means computed in the manner usual at the stations under Mr. Pogson's superintendence ; but as in other reports furnished by Government officers figures are given as means which would be by no means comparable therewith, I would suggest that in all cases in which meteorological returns are sent in giving what are termed 'mean values,' it should be stated in a note from what observations and by what method such means have been computed, in order that they may not be misunderstood.

Government of India, Department of Revenue, Agriculture and Commerce, No. 75, (Meteorology.) Calcutta, the 9th November 1875.

Copy forwarded to the Chief Commissioner of Mysore, with reference to his Officiating Secretary's letter No. 5037—78, dated the 17th September last.

No. 6916—Genl. 23, dated Bangalore, 27th November 1875.

Ordered, that copies of the foregoing be forwarded to the Chief Secretary to the Government of Madras for communication to the Government Astronomer at Madras with a request that in the returns furnished to this Office from the Bangalore Observatory the information called for by the Government of India may be supplied.

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, General Department, 29th November 1875.*

From the Offg. Judicial Commissioner of Mysore, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, No. 1915—214, dated Bangalore, 29th October 1875.

With reference to your No. 3118—668, dated the 12th July last, I have the honor to submit a report of the result of the examinations of Assistant Commissioners and Munsiffs held on the 23rd and 30th August last.

2. Of the Assistant Commissioners examined by the Higher Standard, Mr. Narnappa failed in all subjects, in the Civil and Criminal papers, getting only 16 and 24 marks out of a maximum of 100; while his paper on Hindu and Muhammadan Law was only a little better.

3. Mr. Soob Rao may be considered to have passed in Hindu and Muhammadan Law and in Criminal Law, but not in Civil Law or in the Law of Evidence, and Mr. Srinivasaiengar only in Hindu and Muhammadan Law. I would therefore recommend that all these officers be subject to further examination in the subjects in which they have failed.

4. Of the Assistant *Commissioners who were examined by the Lower Standard, all may be considered to have passed in Criminal Law, but they all failed signally in Civil Law and in the Law of Evidence.

*Mr. T. Ananda Rao.
„ Ganes Sing.
„ Nasiruddin.

5. Out of the Munsiffs examined I would recommend that the following only be considered to have passed :—

Mr. Madhava Rao.
„ Raghavendra Rao.
„ Kupswami Modaliar.
„ Annaji Rao.

Messrs. John Lawrance, Lovery and D. Narsing Rao failed to pass. Mr. Lawrance who is still on probation was allowed a further term of six months to pass the examination in which he had previously failed (*vide* Secretary's letter No. 7924—1711, dated 4th February 1875). He has now again failed, and all his papers shew little knowledge of the subjects of examination. I would therefore recommend that he be placed out of employ with a promise that should he pass at the next examination he will be re-employed.

6. Messrs. Lovery and D. Narsing Rao have only recently been appointed and may be allowed to continue in office subject to their passing at the next examination.

7. Of those who are not Munsiffs, Mr. Narayinswamaiengar was examined under orders of the Chief Commissioner, and I allowed Mr. Venkat Rao, Sheristadar of the Judicial Assistant's Court, Bangalore, and Mr. Seshagiri Sham Rao who had temporarily acted as Munsiff of Turuvekere in the Túmkúr District, also to appear. Mr. Narayinswamaiengar and Mr. Venkat Rao passed the tests, but Mr. Seshagiri Sham Rao failed and will not be considered eligible for re-employment until he has, at least, passed the Madras Tests.

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### No. 7020—Genl. 1416, dated Bangalore, 29th November 1875.

Order.—The following Assistant Commissioners appeared for examination according to the several standards and tests denoted :—

1. Mr. A. Srinivasaiengar, Higher Standard.
2. „ Narnappa, do
3. „ Vijayendra Rao, Revenue and Financial Tests.
4. „ C. Soob Rao, Higher Standard.
5. „ Púrnaiya, Revenue and Financial Tests only.
6. „ Syed Nasiruddín, Lower Standard.
7. „ T. Ananda Rao, Offg. Assistant Commissioner, Lower Standard.
8. „ Ganes Singh do do Lower Standard.
9. „ B. Venkat Vardaiengar, do Revenue and Financial Tests only.

2. Messrs. A. Srinivasaiengar and Narnappa were permitted to appear for examination by the Higher Standard, although they had not previously passed the Lower

Standard. Mr. Srinivasaiengar passed only in the Hindu and Muhammadan Law. These officers will be required to pass at the next examination in the tests prescribed for the Lower Standard. Mr. C. Soob Rao failed to pass in Civil Law, and it will be necessary that he should present himself for examination on that subject at the next examination.

3. The officers who appeared for examination for the Lower Standard were Messrs. T. Ananda Rao, Ganes Singh, Nasiruddín. They are reported by the Judical Commissioner to have failed in the Civil Procedure Code and Law of Evidence, and will be required to pass in these subjects at the next annual examination. These officers passed a successful examination in the General Stamp and Court Fees Acts, and the Revenue and Financial Tests excepting Mr. Syed Nasiruddín, who failed in the Financial topics, in which he will have to be examined again.

4. Messrs. Vijayendra Rao and Púrnaiya and B. Venkat Vardaiengar, Attaché, passed successfully in the General Stamp and Court Fees Act, and the Revenue and Financial Tests.

5. Among the Munsiffs who presented themselves for examination, Madhava Rao, Raghavendra Rao, Kupswami Modaliar and Annaji Rao were successful and are confirmed in their appointments. Messrs. Lawrance and Lovery and Narsing Rao who have failed will be allowed another opportunity of passing the prescribed examination.

The names of those officials who have successfully passed the Munsiff's Examination, including those of Narayinswamaiengar and Venkat Rao who were admitted for examination, will be notified in the *Mysore Gazette.*

T. CLARKE,
*Offg. Secretary.*

## *Proceedings of the Chief Commissioner of Mysore, General Department, 30th November* 1875.

**From the Commissioner of the Ashtagram Division, To the Offg. Secretary to the Chief Commissioner of Mysore, General Department, Genl. No. 609—237, dated Mysore, 4th November 1875.**

With reference to your letter No. 3788—150, dated 3rd August 1875, enclosing in a sealed cover, copies of question papers for the examination of the candidates for the Amildar's Test, I have the honor to report as follows for the information of the Chief Commissioner.

2. The question papers received in this Office were given out to the candidates on the 9th and 10th August as notified in the *Mysore Gazette* of the 31st July last.

3. The candidates that presented themselves for the examination were:—

| | | |
|---|---|---|
| 1 | Gopal Kristnaiengar .. .. | Amildar of Channaraypatna. |
| 2 | Venkatachar .. .. .. | Do Arkalgúd. |
| 3 | Mahabal Rao, .. .. | Peshkar, Chamarajnagar. |
| 4 | Kupswami Chetti .. .. | Peshkar, Periyapatna. |
| 5 | A. Subbaiyer .. .. .. | Amildar of Harnhalli. |
| 6 | Kumaravelu Pille .. .. | Do Belur. |
| 7 | Srinivas Rao .. .. .. | Do Nanjangúd. |
| 8 | Lakshmana Modaliar .. .. | Do Narsipur. |

4. The examination which in this year was entirely in writing, was conducted under my personal supervision. The first six candidates appeared for both Judicial and Revenue Tests, while the last two appeared for the Revenue branch alone.

5. I valued the answers of the candidates in accordance with the Chief Commissioner's orders conveyed in your docket No. 3932—159, dated 11th August 1875, the results of which are embodied in the appended statement which will shew that out of the six men that appeared for the Judicial Test, Gopal Kristnaiengar, Mahabal Rao, Kupswami Chetti, Subbaiyer, and Kumaravelu Pille were successful in securing one fourth of the marks assigned to each subject, while Venkatachar, Amildar of Arkalgúd, failed in two out of the three judicial subjects.

6. Of the eight candidates for the Revenue Test, Lakshmana Modaliar failed in four out of the six subjects; he should therefore be declared as not passed.

7. Mahabal Rao has answered fairly in all the subjects, and has secured the required number of marks in all excepting the Civil Procedure Code, in which he falls short of the minimum by half a mark. As the Civil Procedure Code is now not absolutely essential to Amildars, and as Mahabal Rao has answered well on the whole, I would recommend half a mark of grace being given him in that particular subject. If this is granted Mahabal Rao may be declared a successful candidate in both the branches.

8. Kupswami Chetti has done well in all subjects, except the Court Fees' Act in which 4½ marks are wanting for him to make up the prescribed minimum in that subject. I am given to understand that it is customary in all the Universities to grant marks of grace not exceeding 3 to candidates who do very well on the whole, but fall short of one or two marks to secure the minimum in any one particular subject. If this rule was strictly adhered to, Kupswami Chetti is not entitled to pass in the Revenue branch, but should be declared as having passed only the Judicial Test. I think however that he may be considered qualified on the whole and recommend his being passed.

9. Venkatachar falls short of 3 marks in the General Stamp Act, but I am not prepared to recommend any grace marks being allowed him, as he failed in two other important subjects, namely Evidence and the Penal Code.

10. The remaining candidates, namely, Gopal Kristnaiengar, Subbaiyer, Kumaravelu Pille and Srinivas Rao are entitled to pass. Srinivas Rao has answered very creditably.

11. When the paper on Evidence was given out, all the candidates represented to me that the questions purported to have been set on Kindersley's Law of Evidence and that they were not prepared to answer them from that book. I therefore allowed them to answer the questions from what they had studied in the Evidence Act and valued the answers by comparing with those given in Currie's Law Examination Manual from which most of the questions appear to have been copied *verbatim*.

12. Regarding Lakshmana Modaliar, Probationary Amildar of Narsipur, I recommend for the consideration of the Chief Commissioner, that a further period of 6 months be given to him as was the case with the Amildars who failed in the last year's examination.

*Proceedings of the Chief Commissioner of Mysore, General Department, 30th November 1875.*

13. Referring to the Chief Commissioner's Proceedings No. 7321—282, dated 11th January 1875, as Venkatachar, one of the Probationary Amildars therein alluded to, has again failed in the examination, the orders of the Chief Commissioner are requested whether this Amildar should forfeit his appointment or be directed to revert to his former appointment.

Tabular Statement of the Results of the Amildar's Test held in the month of August 1875, in the Ashtagram Division, Mysore.

| Names of Candidates. | Judicial Subjects. | | | Revenue Subjects. | | | | | | Total. | Whether passed or not passed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Law of Evidence. | Penal Code. | Criminal Procedure Code. | Civil Procedure Code. | Registration Act. | Stamp Act. | Court Fees' Act. | Survey and Settlement Rules, &c., village accounts. | Forest Conservancy Rules. | | | |
| | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 650 | | |
| Gopal Kristnaiengar ... | 44½ | 25 | 36½ | 53 | 30½ | 27 | 35 | 17 | 29 | 297½ | Passed. | |
| Venkatachar ... | 15 | 16½ | 39½ | 34 | 34 | 9½ | 24½ | 22 | 19 | 214 | Not passed. | |
| Mahabal Rao ... | 36 | 26 | 34 | 24½ | 17 | 30½ | 20½ | 21 | 23 | 232½ | Passed. | Recommended, *vide* para 7 of the letter. |
| Kupswami Chetti ... | 25 | 26 | 51 | 29 | 28 | 19 | 8 | 18 | 28 | 232 | Passed. | Do do para 8 of do |
| A. Subbaiyer ... | 30½ | 37 | 37 | 40 | 27 | 21 | 18½ | 23 | 27 | 261 | Passed. | |
| Kumaravelu Pille ... | 26½ | 41 | 36 | 25 | 14½ | 21 | 27 | 20 | 19 | 230 | Passed. | |
| | | | | | | | | | | 350 | | |
| Srinivas Rao ... | ... | ... | ... | 53 | 41 | 40 | 36 | 23 | 22 | 215 | Passed. | |
| Lakshman Modaliar .. | .. | .. | ... | 5 | 1 | 9½ | ... | 21 | 25 | 61½ | Not passed | |

No. 7027—Genl. 247, dated Bangalore, 30th November 1875.

Order thereon.—The Offg. Chief Commissioner observes that, of the candidates who were examined, the following may be considered as having passed the Amildar's Test.—

Gopal Kristnaiengar, Amildar of Channarayapatna.
Mahabal Rao, Peshkar of Chamrajnagar.
Kupswami Chetti, Peshkar of Periyapatna.
A. Subbaiyer, Amildar of Harnhalli.
Kumaravelu Pille, Amildar of Belur.
Srinivas Rao, Amildar of Nanjangúd.

2. Lakshman Modaliar, Probationary Amildar of Narsipur, may be permitted to appear again on the next occasion, for examination in the four subjects in which he is reported to have failed.

3. Venkatachar, Probationary Amildar of Arkalgúd, having failed to pass in the Penal Code, and Evidence and General Stamp Acts, may be permitted to appear again at the Amildar's Examination next year, but in accordance with the orders of the 11th January last, will forfeit his present appointment, and revert to his former appointment

4. The names of the passed candidates will be notified in the *Mysore Gazette.*

T. CLARKE,
*Offg. Secretary.*

# PART I.

## EDUCATIONAL DEPARTMENT.

### A.

PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Central College.* Passing orders as to the standard up to which instruction will be imparted. | No. 7016—10, dated 30th Nov. 1875. | ... | ... | 1 to 2 |

*Proceedings of the Chief Commissioner of Mysore, Educational Department, 30th November 1875.*

READ—

Proceedings of the Officiating Chief Commissioner, No. 2692—Edl. 3, dated 28th June 1875.

No. 7016—EDL. 10, DATED BANGALORE, 30TH NOVEMBER 1875.

ORDER.—In para 4 of the Proceedings above quoted, the Officiating Chief Commissioner expressed a doubt as to the advisability of forming an M. A. Class in the Central College, and whether the latter should not include the F. A. as well as the B. A. Classes. The further consideration that has been given to this point has confirmed the Offg. Chief Commissioner in the opinion that the Central College should comprise classes for instruction up to the standard of the B. A. degree and also of the First-in-Arts examination, and this arrangement should now be adopted. The necessity for forming an M. A. Class is not apparent, nor under the circumstances is it advisable, but in order to afford facilities for students who are desirous of continuing their studies for the M. A. degree, arrangements might perhaps be made hereafter to provide a course of lectures for evening classes, on such subjects as Moral and Natural Philosophy and Political Economy. These classes may be opened not only to students of the College, but to the outside public, on payment of a suitable fee for each course. The Director will be good enough to report his views on this suggestion.

2. An application has been made to the Government of India to procure the services of an Assistant Principal for the Central College who shall be qualified to instruct in the Physical Sciences. For the instruction of the College classes in the higher mathematics and other cognate subjects, the services of Mr. Gramatzki, the Principal of the Civil Engineering College, will be available.

3. The High School attached to the Central College will teach up to the standard of the Matriculation examination, and will have the present staff of masters, supervised by the Principal of the College. It would be desirable that the Senior Matriculation class of this school should be instructed in the English language as well as in physical sciences by the Professors of the College. In order to provide moreover for elementary education, the Officiating Chief Commissioner considers that a primary school should be formed from the three lowest classes of the Bangalore High School, under the charge, if practicable, of an European Head Master, and it is of importance that provision should be made in this school for teaching the vernacular languages which should include Tamil and Telugu as well as Sanskrit if practicable. The cost of the primary school is a charge which should probably be defrayed from Local or Municipal Funds, and the Director is requested to report what provision from the Educational cess can be made for this purpose.

4. The Divisional High Schools at Mysore and Shimoga will be permitted as at present to teach up to the standard of the F. A. examination, in order to meet the wants of those residing in the Mofussil stations who are unable to come to Bangalore to pursue their studies. Provision will have to be made for forming preparatory schools in connection with these two High Schools, unless this exists already in "Taluk" Schools at Mysore and Shimoga.

5. There will be 5 District *Schools which will be affiliated to the High School of the Division and where the education will be carried up to the standard of Matriculation. These as well as the Taluk Schools will comprise an Upper and Lower Department, with 3 classes in each. In the Lower Department a sound vernacular education will be imparted, and in the Upper Department, English will be more generally used as a means of instruction. No student will be admitted to the Upper Department until it has been certified by the Inspector that he has completed his course in the Lower Department.

* Hassan.
Chitaldroog.
Chikmagalur.
Túmkúr.
Kolar.

6. With regard to the Taluk Schools, the Officiating Chief Commissioner considers that a standard should be fixed somewhat lower than that aimed at in the District Schools, and that if the standard is to be determined, it should be limited to the 1st class or Preparatory Matriculation class.

7. The Officiating Chief Commissioner is unable to approve of Mr. Rice's suggestion that a "Leaving Examination" should be adopted for all schools, as a new test of qualification, designed to meet the views of those who from various causes are unable or unwilling to pursue a University course of studies. There are many obvious objections to such a test being instituted, and not the least would be to diminish the value of the Matriculation standard and to interfere with a well-established course of education.

8. The question of the disposal of scholarships requires, in the Officiating Chief Commissioner's opinion, careful revision. It is important that these should be given, not in consideration merely of the poverty of the student, but solely for merit, wheresoever it may be found.

9. The Officiating Chief Commissioner desires lastly to point out the apparent necessity for some change in the hours of study observed at the College and Schools in this Province. These hours are now fixed at from 7 to 11 A. M.; the object apparently being to allow officials holding Government appointments, of whom it is understood there are not a few, to attend the College classes. Four hours in the morning are certainly too much for sustained mental exertion, on the part of youths of all ages, and setting aside the convenience of those who also attend Government Offices, a better division of the day would probably conduce to better work being done, as well as to economize the time. Whether due to this cause or not, it is apparent that the results achieved at the Central College during the past and previous years do not compare favorably with those of the principal Schools and Colleges in the Madras Presidency.

The Officiating Chief Commissioner sees no reason why a different arrangement should prevail in this Province from that followed elsewhere, and desires that the subject may be early considered with a view to the school hours being changed, at least in the principal schools of the Province.

T. CLARKE,
*Offg. Secretary.*

# PART I.

## MILITARY DEPARTMENT.

### A.

PROCEEDINGS OF THE CHIEF COMMISSIONER OF MYSORE FOR THE MONTH OF NOVEMBER 1875.

| 1 | 2. | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Index Nos. of the Proceedings. | Subject. | Nos. and Dates of Proceedings. | Date of Report to the Secretary of State for India. | Nos. and Dates of previous Proceedings. | Page. |
| 1 to 2 | *Place of Arms in use by the Bangalore Rifle Volunteers.*<br>Directing that copies of correspondence on the subject be communicated to the Commandant, Bangal re Rifle Volunteers and the Deputy Accountant General. | No. 6404—1, dated 4th Nov. 1875. | ... | ... | 1 to 2 |

*Proceedings of the Chief Commissioner of Mysore, Military Department, 4th November* 1875.

**Barracks and Buildings.**

Read the following papers:—

From Brigadier-General A. HOWLETT, C. B., Quarter-Master General, To Colonel A. C. SILVER, Secretary to Government, Military Department; dated Head Quarters-Ootacamund, 4th October 1875, No. 472—6065.

I have the honor to report that recently the Officer Commanding Mysore Division submitted an estimate (enclosed) for Rs. 2,030, for placing in substantial repair the place of arms which was made over for the use of the Bangalore Rifle Volunteers in 1869, and suggesting at the same time whether the building might not be entirely made over to the Mysore Government.

2. The estimated value of the barracks is Rs. 8,150, and although not assenting to the proposal for its transfer to the Mysore Government, or to authorize a further outlay than was required for the necessary repairs, the Commander-in-Chief requested the Officer Commanding Mysore Division to communicate with the Chief Commissioner to ascertain whether, in consideration of the long period the building had been in use by the Volunteers, the additional charge for any extensive repairs should not be met by the Mysore Government.

3. The reply* from the Secretary to the Chief Commissioner is enclosed, from which it will be observed that, if the Volunteers are permitted to continue in occupation of the building so long as it is not required for military purposes, the Chief Commissioner will undertake to bear half the cost of the outlay now stated to be necessary for its thorough repair.

*No. 4704, 13th September 1875.

4. The Commander-in-Chief has no objection to the continued loan of the barrack to the Volunteers, and recommends that the offer of the Chief Commissioner be accepted.

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From the Offg. Secretary to the Chief Commissioner of Mysore, To the Assistant Quarter-Master General, Mysore Division, Genl. No. 4704,—Mily. No. 36, dated Bangalore, 13th September 1875.

I am desired to acknowledge the receipt of your letter No. 1553, dated the 3rd instant, communicating copy of letter No. 385 of 1st instant, from the Quarter-Master General of the Army, and to state that the Officiating Chief Commissioner infers that, though unwilling to make over the building in question permanently for the use of the Bangalore Rifle Volunteers, His Excellency the Commander-in-Chief would be prepared to permit that corps to occupy it as barracks so long as it should not be required for military purposes.

2. I am directed to observe that if the use of the building can be obtained on the terms above stated, which it is understood His Excellency is willing to accede to, the Officiating Chief Commissioner will gladly undertake to bear half the cost of the expenditure which it is now proposed to incur in the thorough repair of the building.

3. The Officiating Chief Commissioner, I am to add, would have been gratified to learn that it would have been practicable to relinquish the building, at least temporarily and for a definite term of years, in case there was no present likelihood of its being required for the purpose of the garrison; and in the event of such an arrangement being still deemed feasible, he will be prepared to consent to the whole cost of repair, as now estimated, being defrayed by the Mysore Government, the repairs being carried out, if desired, by the Mysore Department Public Works.

4. The estimate is herewith returned.

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Order thereon, 9th October 1875, No. 4919.

The Honorable the Governor in Council accepts the offer of the Chief Commissioner of Mysore.

2. The estimate for the repair of the place of arms is approved.

(True Extract.)
A. C. SILVER, *Colonel*,
*Secretary to Government.*

No. 6404—MILY. 1, DATED BANGALORE, 4TH NOVEMBER 1875.

ORDERED that copies of the above be communicated to the Commandant, Bangalore Rifle Volunteers, and to the Deputy Accountant General.

2. On receipt of the bill or other intimation from the Military authorities of the cost of the work, a moiety of the amount will be charged to the Budget provision under 26, Miscellaneous.

T. CLARKE,
*Offg. Secretary.*

# PART II.

## JUDICIAL.

### B.

TABULAR STATEMENT OF MATTERS OF ROUTINE FOR THE MONTH OF NOVEMBER 1875.

MYSORE.

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 1 | Notification empowering Ramanna, Amildar and 3rd Class Magistrate of the Gudibanda Taluk, under Section 37 of the Revised Forest Rules, to try such offences against those rules as fall within his jurisdiction, was gazetted and copy sent to Officiating Judicial Commissioner. | 2nd Nov. 1875. | |
| 2 | Copy of Government of India, Home Department, endorsement, No. 13—483, forwarding copy of a letter to the address of the Superintendent, Port Blair, expressing concurrence in the objections raised by that Officer to the transportation of female term-convicts to the Andamans, was forwarded to the Officiating Judicial Commissioner. | 9th do | |
| 3 | A warrant duly countersigned for the extradition of one Syed Jalal, was returned to Nundydroog Commissioner, duly countersigned.<br>Do Do for the extradition of one Tippu Sheriff. | 13th do | |
| 4 | Notification directing Amildar Srinivas Rao, under the proviso to Section 335 of Act X of 1872, to take down the evidence of complainants or witnesses with his own hand in the English language, was gazetted and copy sent to Officiating Judicial Commissioner. | 18th do | |
| 5 | Copy of Government of India, Financial Department, Resolution regarding the rate of travelling allowance to be drawn by Inspectors of Police when placed in charge of the Office of a District or Assistant Superintendent's Office, was forwarded to the Inspector General of Police. Gazetted. | 22nd do | |

MYSORE CHIEF COMMISSIONER'S OFFICE,
*Bangalore, December* 1875.

T. CLARKE,
*Offg. Secretary.*

# PART II.

## DEPARTMENT OF REVENUE, AGRICULTURE AND COMMERCE.

### B.

TABULAR STATEMENT OF MATTERS OF ROUTINE FOR THE MONTH OF NOVEMBER 1875.

MYSORE.

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 1 | In reply, the Commissioner, Nundydroog Division, was informed that as all restrictions as to date for applications for lands had been abolished, a circular order issued by him fixing the Amildar's jamabandi as the period after which darkhasts filed should be carried to credit, should be withdrawn.—Communicated to Commissioners, Ashtagram and Nagar. | 1st Nov. 1875. | |
| 2 | As submitted by the Kadur Deputy Commissioner, the grant of a piece of land to one Venkatkrishnaiya, Hebbur, for the grant of a piece of land for coffee cultivation, was sanctioned. | 2nd do | |
| 3 | Copy of communication from the Assistant Secretary to the Government of India in the Foreign Department, sanctioning the permanent remission of assessment amounting to Rs. 21—11—6, on a plot of ground obtained by the Roman Catholic Bishop, was forwarded to Ashtagram Commissioner. | 3rd do | *Vide* Progs. for Sept. 1875, Part II, Rev. Ag. & Com. No. |
| 4 | In reply, the Nundydroog Commissioner was informed that the practice of employing the Koivadigars as an unpaid agency in addition to the conservancy establishment of the Municipality was clearly open to objection, but in consideration of work having been obtained from them, the remission of house-tax from 1871—72 to 1874—75 would be granted as a special case. | 4th do | |
| 5 | The Officiating Chief Commissioner's orders on the Inam Superintendent's Report for the quarter ending 30th June 1875 were communicated to the Inam Commissioner. | Do do | |
| 6 | In reply, the Officiating Chief Commissioner's instructions relative to fixing a definite rate of quit-rent to be imposed on the inams of hereditary officers who have not performed service for upwards of 50 years were communicated to the Survey and Settlement Commissioner. | 5th do | |
| 7 | With reference to a communication from the Deputy Commissioner, Chitaldroog District, explaining the circumstances under which the estimates of certain items in the draft budget for 1876—77 were fixed, the Commissioner, Nagar Division, was requested to institute a careful enquiry as to a statement made in regard to the present rate of still-head duty operating in a manner prejudicial to the revenue from that source. | 6th do | |
| 8 | A manuscript copy of the return of prices current of food grains in this Province and Coorg, for fortnight ending 31st October 1875, was submitted to the Government of India in the Department of Revenue, Agriculture and Commerce. | 8th do | |
| 9 | In reply, the Officiating Chief Commissioner's remarks were communicated to Ashtagram Commissioner, in regard to the course to be adopted in the case of unauthorized cardamom cultivation, and his opinion was asked for on the points noted. | Do do | |
| 10 | In reply, the Forest Budget estimates for 1876—77 were returned to the Deputy Accountant General revised as particularized. | 9th do | |
| 11 | In reply, the Officiating Chief Commissioner's instructions were communicated to the Commissioner, Nundydroog Division, in regard to the application of one Mr. Lee, to resign certain lands held by him. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 12 | In reply, the Commissioner, Nundydroog Division, was directed to restore one Kuppaiya to his Office, as Shanbhog. | 10th Nov. 1875 | |
| 13 | In reply, the Officiating Chief Commissioner's instructions were communicated to Ashtagram Commissioner in regard to the arrangements under which arrack for the Mysore District, is purchased by Government from the Palhalli Sugar and Rum Works Company. | Do do | |
| 14 | Under circumstances represented by Commissioner, Nundydroog Division, the remission of Rs. 19—10—3 in the Bangalore District was sanctioned. | Do do | |
| 15 | The usual season report for week ending 11th November was signalled to the Government of India in the Department of Revenue, Agriculture and Commerce. | 11th do | |
| 16 | Three printed copies of the return of food grains in this Province and Coorg, for fortnight ending 31st October 1875, were forwarded to the Government of India in the Department of Revenue, Agriculture and Commerce to substitute manuscripts. | 12th do | |
| 17 | Under circumstances represented by Nagar Commissioner, the grant of a piece of land measuring 1450 yards assessed at Rs. 1—1—7, to the temple of Virabhadra Devar in the Chikmagalur Taluk, in exchange for the inam land of the temple taken up for a public road, was sanctioned.—Communicated to Superintendent, Inam Settlements. | Do do | |
| 18 | As solicited by the Commissioner, Nundydroog Division, the remission of assessment on certain land taken up by the Yelahanka Municipality, for the formation of a road, was sanctioned. | 13th do | |
| 19 | The usual season report for week ending 18th November 1875 was signalled to the Government of India in the Department of Revenue, Agriculture and Commerce. | 18th do | |
| 20 | A manuscript copy of the return of prices current of food grains in this Province and Coorg, for fortnight ending 15th instant, was submitted to the Government of India in the Department of Revenue, Agriculture and Commerce. | 23rd do | |
| 21 | Under circumstances represented by Ashtagram Commissioner, the grant to certain ryots of some dry unassessed waste land in the Narsipur Taluk, for building purposes, was sanctioned. | 24th do | |
| 22 | The usual season report for week ending 25th instant was signalled to the Government of India in the Department of Revenue, Agriculture and Commerce. | 25th do | |
| 23 | Two copies of the Progress Report of the Forest Department, for 1874—75, with the Chief Commissioner's Review thereon, were forwarded to the Government of India in the Department of Revenue, Agriculture and Commerce, with an intimation that 398 additional copies had been forwarded by book post. | 27th do | |
| 24 | As requested, the Ashtagram Commissioner was informed that the grant of certain land applied for by the Department Public Works, for the construction of a cistern at the Rajput Ghat, Mysore Kasba, was sanctioned, and that application would be made to the Government of India for the remission of the assessment.—Application to Government of India accordingly. | 29th do | |

MYSORE CHIEF COMMISSIONER'S OFFICE,
*Bangalore, December* 1875.

T. CLARKE,
*Offg. Secretary.*

# PART II.

## DEPT. OF REVENUE, AGRICULTURE AND COMMERCE.

### FORESTS.

B.

TABULAR STATEMENT OF MATTERS OF ROUTINE FOR THE MONTH OF NOVEMBER 1875.

MYSORE.

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 1 | On the recommendation of the Conservator of Forests, a free grant of 26 cart-loads of bamboos to the ryots of the Closepet Taluk, to enable them to rebuild their houses destroyed by fire, was sanctioned. | 10th Nov. 1875. | |
| 2 | A copy of *Revenue "Des Eaux et Forets"* for September 1875, was forwarded to the Conservator of Forests, for circulation to Officers of his Department. | 19th do | |

MYSORE CHIEF COMMISSIONER'S OFFICE,
*Bangalore, December* 1875.

T. CLARKE,
*Offg. Secretary.*

# PART II.

## FINANCIAL.

### B.

### TABULAR STATEMENT OF MATTERS OF ROUTINE FOR THE MONTH OF NOVEMBER 1875.

MYSORE.

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 1 | In reply, the Deputy Accountant General was informed that the further delay, applied for by the Deputy Inspector General of Police, for the payment of gratuities to men of the Police force considered unfit for further service, could not be allowed, and he was requested to make a further report by the close of December next, with a view to a recommendation being made to the Government of India for the cancellation of the special rules. | 1st Nov. 1875. | *Vide* Progs for Feb. 1875, Part I. "Financial," Index Nos. |
| 2 | As solicited by the Director of Public Instruction, the purchase of 200 copies of Matriculation Text Book at a cost of Rs. 404 was sanctioned.—Communicated to Deputy Accountant General. | 1st do | |
| 3 | As solicited by Nundydroog Commissioner, the entertainment of 10 Revenue peons for aiding survey operations in the Goribidnur Taluk was sanctioned.—Communicated to Deputy Accountant General. | 2nd do | |
| 4 | In reply, the Officiating Judicial Commissioner was informed that the sum of Rs. 566—1—7, being the amount incurred in excess of the Budget grant of the current year under the head "Charges for transportation of convicts," should be charged against savings in the Central Jail Budget. Communicated to Deputy Accountant General. | Do do | |
| 5 | In reply, the Conservator of Forests was informed that, under Government of India standing orders, the Conservator of Forests was authorized to pass to Forest subordinates the *bonâ fide* expenses incurred by them while travelling on duty, in lieu of the daily allowance of ⅛ths of pay. | Do do | |
| 6 | On the representation of the Nagar Commissioner, a gratuity amounting to Rs. 34—10—2, on behalf of one Pir Ahmed, Dalayit, Deputy Commissioner's Office, Shimoga District was sanctioned.—Communicated to Deputy Accountant General. | 3rd do | |
| 7 | As solicited by the Conservator of Forests, the grant of an extra allowance of Rs. 2 per mensem to two Watchers in the Mysore Range being continued to them until 31st March 1876 was sanctioned.—Communicated to Deputy Accountant General. | 4th do | |
| 8 | As solicited by the Conservator of Forests, the purchase of 3 sets of wooden scales at a cost of Rs. 177 was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 9 | An application from the Superintendent, Central Jail, for an increased rate of pay was submitted for the orders of the Government of India in the Home Department. | Do do | |
| 10 | Under circumstances represented by the Civil Surgeon, Mysore, the Deputy Surgeon General, Indian Medical Department, was informed that the retention of 2 Orderlies for a further period of 6 months, for the Raja's Hospital, was sanctioned. | Do do | *Vide* Progs. for July 1875, No. 44, "Financial,, |
| 11 | As solicited by Nundydroog Commissioner, a bill amounting to Rs. 70—13—0, for stamp and registration fees, on account of the house purchased for the use of the Superintendent, Bangalore Experimental Farm, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 12 | In reply, a report was submitted to the Government of India in the Foreign Department, as to the duties performed by Ex-Risaldar Sham Rao, in the "Kandachar" Department of the service in this Province. | 5th Nov. 1875. | |
| 13 | On the final report of the Deputy Accountant General, 2 gratuity rolls amounting to Rs. 549—8—11, on behalf of seven men of the Tumkur and Hassan Districts Kandachar Police Force, were sanctioned. | Do do | |
| 14 | Five statements of pensions and gratuities sanctioned during the quarter ending 30th September 1875 were returned to the Deputy Accountant General to be prepared in accordance with the form prescribed in Government of India Resolution No. 1029, dated 31st May 1875. | Do do | |
| 15 | In reply, the Deputy Accountant General was informed that the present procedure in accounting for the expenditure on repair of boundary marks in unoccupied lands was contrary to the authorized rule as well as erroneous in practice, and the Survey and Settlement Commissioner was requested to submit a draft rule revised in the manner indicated. | Do do | |
| 16 | As solicited by Nagar Commissioner, a bill for Rs. 2—10—0 required for purchasing 7 leather "Dabbis" for the use of the Sayer Kattes in the Dodéri Taluk was sanctioned.—Communicated to Deputy Accountant General. | 6th do | |
| 17 | As solicited by Ashtagram Commissioner, an estimate amounting to Rs. 108, for repairing certain tents belonging to his Office, was sanctioned. Communicated to Deputy Accountant General. | Do do | |
| 18 | In reply, the Director of Public Instruction was informed that the Officiating Chief Commissioner had been pleased to accord his sanction to the Educational Budget Estimates for 1876—77. | 8th do | |
| 19 | As solicited by Ashtagram Commissioner, an estimate for Rs. 1,700, for dismantling and re-constructing the Market Police Tannah at Mysore, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 20 | As submitted by President, Cantonment Municipal Board, an estimate amounting to Rs. 290, for erecting an iron railing around an ornamental lamp post in the Cantonment, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 21 | As requested by the Inspector General of Police, the entertainment of ten extra European Chief Constables consequent on the approaching visit of His Royal Highness the Prince of Wales was sanctioned.—Communicated to Deputy Accountant General. | 9th do | |
| 22 | On the final report of the Deputy Accountant General, a gratuity roll amounting to Rs. 557, on behalf of 4 men of the Hassan District, Kandachar Police Force, was sanctioned. | Do do | |
| 23 | As solicited by Nundydroog Commissioner, a refund bill amounting to Rs. 45—5—3 was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 24 | As solicited by the Conservator of Forests, the purchase of 3 dozen bill-books at a cost of Rs. 70—8—0, required for the Mastigudi Teak Plantation in the Mysore Range, was sanctioned.—Communicated to Deputy Accountant General. | 10th do | |
| 25 | On the representation of the Ashtagram Commissioner, the disbursement of an invalid gratuity amounting to Rs. 164—10—9, on behalf of a peon, was sanctioned.—Communicated to Deputy Accountant General with application. | Do do | |
| 26 | Rs. 2—6—0 were remitted to the Military Assistant for repairs executed to a flag. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 27 | In reply, the Nagar Commissioner was informed that certain proposals submitted for the entertainment of Kotwals and Watchmen to certain Travellers' Bungalows and Lodges, and for increasing the pay of the Sweepers in certain 3rd class Bungalows in the Kadur District, required revision. | 10th Nov. 1875. | |
| 28 | In reply, the Government of India in the Financial Department were informed that so far as they were in modification of existing rules on the subject, the draft rules regarding travelling allowances for voyages by sea or in river steamers seemed suitable. | Do do | |
| 29 | The receipt of Rs. 13—6—0 in payment of 3 copies of the Sydapet Farm Report, supplied to Nagar Commissioner from this Office, was acknowledged. Amount forwarded to Officer in charge of Her Majesty's Treasury to be credited in the accounts. | Do do | |
| 30 | The Officiating Chief Commissioner's orders on the Budget estimates of the Lal-Bagh, for 1876—77, were communicated to the Director Government Gardens, and the Deputy Accountant General. | Do do | |
| 31 | As solicited by Nagar Commissioner, two estimates amounting to Rs. 1,500, for constructing drains at Chitaldroog, were sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 32 | In reply, the Nundydroog Commissioner was informed that the refund of Rs. 277—10—0 to one Krishnappa, on account of certain trees cut down in a tope in his possession, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 33 | In reply, the Deputy Accountant General was authorized to procure 10,000 Rs. worth of pie pieces from Calcutta or Bombay, as they are not procurable at Madras. | 11th do | |
| 34 | The deed of mortgage executed by the Trustees of Bishop Cotton's School and College was forwarded to the Deputy Accountant General. | Do do | |
| 35 | On the representation of the Officiating Judicial Commissioner, a gratuity of Rs. 112, to a peon in the Bangalore Central Jail, was sanctioned.—Communicated to Deputy Accountant General with application. | Do do | |
| 36 | On the final report of the Deputy Accountant General, an invalid gratuity of Rs. 600 to Ram Rao, estimator, Channel Superintendent's Office, was sanctioned. | Do do | |
| 37 | As solicited by Nagar Commissioner, an estimate amounting to Rs. 9, for repairing the tents of his Office, was sanctioned.—Communicated to Deputy Accountant General with estimate. | Do do | |
| 38 | In reply, the Director of Public Instruction was informed with reference to the disbursement of scholarships provided for the School of Engineering and Natural Science that a bill for the payment of the authorized stipends should be presented to the Deputy Accountant General. | Do do | |
| 39 | On the representation of the Nundydroog Commissioner, the payment of a gratuity of Rs. 40 to a Revenue Peon was sanctioned.—Communicated to Deputy Accountant General. | 12th do | |
| 40 | In reply, the Nagar Commissioner was informed that certain re-appropriations required to be made in the Budget grants of the Kadur District, to meet the charges for purchase of office furniture, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 41 | As solicited by Nagar Commissioner, a refund bill for Rs. 4, payable to one Venkat Rao, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 42 | As solicited by Ashtagram Commissioner, a bill amounting to Rs. 18—8—0, for preparing belts for the use of the peons of the District and Assistants' Offices, Hassan District, was sanctioned.—Communicated to Deputy Accountant General with bill. | 12th Nov. 1875. | |
| 43 | In reply, the Nagar Commissioner was informed that the Officiating Chief Commissioner sanctioned a revised establishment proposed for the Agumbe Chatram and that the saving thereby effected should be appropriated for feeding purposes.—Communicated to Deputy Accountant General. | Do do | |
| 44 | Statements for pensions and gratuities sanctioned by the Officiating Chief Commissioner for Quarter ended 30th June 1875, were re-submitted to the Government of India in the Financial Department duly corrected. | 13th do | |
| 45 | The Deputy Accountant General was requested to furnish Colonel E. Boddam with transfer receipts for Rs. 220—11—1 and Rs. 75—11—8, being charges incurred on an invoice of English and American seed potatoes. | Do do | |
| 46 | In returning duly sanctioned, the supplemental Budget estimate of the Kolar District Municipalities for 1875—76, the Nundydroog Commissioner was desired to draw the Deputy Commissioner's attention to the rule that the cash balances of previous years should be applied strictly to works of an extraordinary or reproductive character and not for ordinary repairs of roads, &c. | 15th do | |
| 47 | As solicited by the Conservator of Forests, the purchase of a copy of Beddome's Ferns of Southern India at a cost of Rs. 25, was sanctioned. Communicated to Deputy Accountant General. | Do do | |
| 48 | In reply, the Ashtagram Commissioner was authorized to charge circuit and other expenses of Munsiffs' Courts to savings under head "Law and Justice."— Communicated to Deputy Accountant General. | 16th do | |
| 49 | As solicited by Commissioner, Nundydroog Division, the purchase of certain periodicals for the use of the Head-Quarter Sub Divisional Court, Bangalore District, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 50 | In reply, the Ashtagram Commissioner was informed that the disbursement of Rs. 419—9—9 on account of compensation for land taken up for widening a road in the Mandi Mohalla of the Town of Mysore, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 51 | In reply, the President, Cantonment Municipal Commission, was authorized to appropriate a further sum of Rs. 500—0—0, from the balance available under the head XIV. Reserve to meet charges incurred on account of cholera-sheds.—Communicated to Depu y Accountant General. | Do do | |
| 52 | As solicited by the Military Assistant, the disbursement of Rs. 732—11—0, in payment of 10 sets of saddlery received from England for the use of the Mysore Horse, was sanctioned.—Communicated to Deputy Accountant General. | 17th do | |
| 53 | As solicited by Nundydroog Commissioner, the transfer of Rs. 96-7-11 from the Budget grant under the head "26. Miscellaneous—18. Fuel tracts" for the Bangalore District, to that of "Brass plates for Peons' belts" for the purpose of making up belts for the peons of the Deputy and Assistant Commissioners' Offices of that District was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 54 | As solicited by Ashtagram Commissioner, an estimate amounting to Rs. 100, for coats and turbans, &c., for the Residency, Bangalore, at Mysore, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 55 | As solicited by Ashtagram Commissioner, the issue of 1,500 doses of quinine from the local Medical Stores, for distribution in the Mysore and Hassan Districts, was sanctioned.—Communicated to Surgeon, Mysore Commission, and the Deputy Accountant General. | 17th Nov. 1875. | |
| 56 | On the representation of the Anche Bakshi, the grant of a pension of Rs. 7—8—7 per mensem, to Narnappa, late Anche Mutsaddi, Bangalore, was sanctioned.—Communicated to Deputy Accountant General with application. | Do do | |
| 57 | On the representation of the Chief Engineer, the grant of a pension of Rs. 11 per mensem, to V. Ramaraj Pille, was sanctioned.—Communicated to Deputy Accountant General with application. | Do do | |
| 58 | As solicited by the Nundydroog Commissioner, the refund of Rs. 2, to the Anche Overseer of the Bangalore Taluk, being amount of fine imposed upon him and since remitted by the Anche Bakshi, was sanctioned.—Communicated to Deputy Accountant General with bill. | Do do | |
| 59 | As solicited by the Ashtagram Commissioner, the employment of a temporary establishment, for the purpose of weighing coffee in the different kotis of the Manjarabad Taluk, at a cost of Rs. 40, for four months, was sanctioned.—Communicated to Deputy Accountant General. | 18th do | |
| 60 | Under circumstances represented, the sanction of the Government of India was solicited to the Bungalow at Sethalli in the Mysore District being permanently raised from the 3rd to the 2nd class. | Do do | |
| 61 | The receipt of 3 Hill tents from Jabbulpur was acknowledged, and a transfer receipt for Rs. 1,439, in adjustment of their cost, was transmitted to the Superintendent of the Industrial School. | 20th do | |
| 62 | Statements shewing the receipts on account of and payments due to Malnad inamdars, in the Shimoga and Kadur Districts, were forwarded to Nagar Commissioner, for adoption. | Do do | |
| 63 | In reply, a public service transfer receipt for Rs. 88—2—0, in adjustment of charges incurred in obtaining a box of silk worms' eggs from China, was forwarded to Messrs. Arbuthnot & Co., Madras, and that firm was at the same time furnished with a copy of a letter from Dr. Henderson, the Superintendent of the Central Jail, describing the damaged state in which the eggs had been received. | 23rd do | |
| 64 | A public service transfer receipt for Rs. 9—8—0, in adjustment of the cost of a quantity of deep sea lead line was forwarded to Mr. Cyrus Grant, Ship Chandler, Madras. | Do do | |
| 65 | A public service transfer receipt for Rs. 31—12—0, in adjustment of freight and other charges incurred on a case transmitted to the address of the Assistant Under-Secretary of State, London, was forwarded to the Agent, Oriental Steam Navigation Company, Madras. | Do do | |
| 66 | A public service transfer receipt for Rs. 55, being subscription in advance, inclusive of postage and packing, for copies of the Madras Quarterly Army List, for 1876, was forwarded to Superintendent, Lawrence Asylum Press, Madras. | Do do | |
| 67 | A transfer receipt for Rs. 84—6—0, being value of 450 copies of a tract on vaccination, was transmitted to the Surgeon General, Indian Medical Department, Fort St. George. | Do do | |
| 68 | On the representation of the Ashtagram Commissioner, the grant of gratuities aggregating Rs. 88 to two revenue peons, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 69 | On the representation of the Anche Bakshi, an increase of Rs. 77-4-0, to the monthly contingent allowance of the several Anche Offices noted, was sanctioned, the cost being met from the general savings under "13. Post Office" for the current year.—Communicated to Deputy Accountant General. | 23rd Nov. 1875. | |
| 70 | As solicited by the Military Assistant, an estimate for Rs. 5—5—0, for repairing the Sepoys' tents of different Regiments of Barr, was sanctioned.—Communicated to Deputy Accountant General | 24th do | |
| 71 | In reply, a report was submitted to the Government of India, as to the emoluments, &c., of Mr. Hudson, the Deputy Accountant General. | Do do | |
| 72 | On the representation of the Nundydroog Commissioner, the transfer of one Venkat Rao to the pension list on Rs. 7—0—7 per mensem, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 73 | As solicited by the Director of Public Instruction, the purchase of certain English and Vernacular books at a cost of Rs. 263—2—0, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 74 | On the representation of the Ashtagram Commissioner, the grant of a pension of Rs. 5—11—2 per mensem, on behalf of one Subbanna, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 75 | Rs. 221—10—0, in adjustment of the cost of scarlet and blue-cloth supplied to this Office, were remitted to the Military Assistant. | Do do | |
| 76 | Rs. 35—7—4, in adjustment of charges for making up two new flags, were remitted to the Military Assistant. | Do do | |
| 77 | On the final report of the Deputy Accountant General, a gratuity roll amounting to Rs. 168, on behalf of two men of the Mysore District Kandachar Police Force, was sanctioned. | 25th do | |
| 78 | As solicited by Nagar Commissioner, a refund bill for Rs. 9—12—1, payable to one Ramappa, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 79 | As solicited by Nundydroog Commissioner, a refund bill for Rs. 50 to one Atchan Bhatta was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 80 | As solicited by the Deputy Accountant General, the purchase of an office table at a cost of Rs. 25 was sanctioned. | Do do | |
| 81 | As solicited by the Anche Bakshi, authority was granted to Rs. 4 being entered in the contingent bill of his Office, on account of expenses incurred as noted.—Communicated to Deputy Accountant General. | 26th do | |
| 82 | On the representation of the Commissioner, Nundydroog Division, the grant of a pension of Rs. 6—12—9 per mensem, to one Muniyappa, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 83 | Copy of Government of India No. 2367, inviting attention to the subject of the expenditure incurred for the purchase of books published in India, was forwarded to the Deputy Accountant General, who was requested to state if he was aware of any deviation from the practice prescribed in paras 1 and 2. | Do do | |
| 84 | The Deputy Accountant General was requested to expedite the transmission to the Government of India, of the Mysore Forest Budget Estimates for 1876—77. | 27th do | |
| 85 | As solicited by the President, Cantonment Municipal Commission, the appropriation of a further sum of Rs. 500, for the maintenance of cholera-sheds, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 86 | As solicited by the Inspector General of Police, the cost of the clothing for the ten extra Chief Constables being met from the current year's budget under the head of 18, Police "Reward to Police, for good service" was approved.—Communicated to Deputy Accountant General. | 29th Nov. 1875. | |
| 87 | As solicited by Nagar Commissioner, a refund bill for Rs. 10, payable to one Krishnappa, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 88 | As solicited by Ashtagram Commissioner, a bill for Rs. 72—1—0, on account of cart-hire in remitting treasure from the Hassan to the Chikmagalur District Treasury, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 89 | As solicited by the Nundydroog Commissioner, a bill for Rs. 20—13—2, being charges incurred in the purchase of stationery, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 90 | The instructions of the Government of India, in the Financial Department, were solicited as to the adjustment of the salary of Mr. T. Krishna Murtaiengar, doing duty in the Office of the Deputy Accountant General. | 30th do | |
| 91 | As solicited by Ashtagram Commissioner, a bill amounting to Rs. 28—4—0, being cost of 4 seals supplied for the use of the Munsiffs' Courts in the Mysore District, was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 92 | A bill for Rs. 103—3—6, duly supported by a treasury bill, was forwarded to the Deputy Accountant General, to be credited to Her Majesty's Treasury, in adjustment of the cost of flags purchased from the Ordnance Department. | Do do | |

MYSORE CHIEF COMMISSIONER'S OFFICE,
*Bangalore, December* 1875.

T. CLARKE,
*Offg. Secretary.*

# PART II.

## GENERAL.

### B.

### TABULAR STATEMENT OF MATTERS OF ROUTINE FOR THE MONTH OF NOVEMBER 1875.

MYSORE.

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 1 | Copies of extract from the Proceedings of the Government of India, appointing a committee of Officers to consider and report upon the facts relating to the grievances urged by the North-Western Provinces' Civilians, received from the Secretary to the Government of India, in the Home Department, were forwarded to Messrs. Prinsep, Porteous and Cuningham. | 1st Nov. 1875. | |
| 2 | Colonel R. Benson, Assistant Commissary General, Bangalore, was thanked for two plants of the Liberian coffee made over by him to the Lal-Bagh, and he was informed that his application for plants of the cocoa and clove would be complied with if practicable. | Do do | |
| 3 | In reply, the Officiating Chief Commissioner's instructions were communicated to the Inspector General of Police, relative to the action to be taken by the Police when dealing with persons found to be suffering from symptoms resembling those of cholera. | 2nd do | |
| 4 | Two copies of docket No. 22—423, dated 15th October 1875, from the Officiating Under-Secretary to the Government of India, Home Department, giving cover to a Despatch from Her Majesty's Secretary of State for India, with Memorandum by the Army Sanitary Commission, on the Sanitary Report of the Central Provinces, for the year 1873, were forwarded to the Deputy Surgeon General, Indian Medical Department. | Do do | |
| 5 | Four copies of do on the Report of the Sanitary Commissioner for the North-Western Provinces, for 1873, were forwarded to the Deputy Surgeon General of Hospitals. | Do do | |
| 6 | Notification directing Ramanujaiengar, Amildar of the Goribidnur Taluk, to take down the evidence of complainants and witnesses with his own hand in the English language was gazetted and copy sent to the Officiating Judicial Commissioner. | Do do | |
| 7 | In reply, a list of the Chief Commissioners of Mysore was submitted to the Government of India in the Financial Department, with an intimation that the names of all Officers who had officiated during the absence on leave or otherwise of the permanent incumbent of the Office had been omitted. | Do do | |
| 8 | Notification appointing Peshkar Ramanna to act as 5th Grade Amildar and 3rd Class Magistrate of the Gudibanda Taluk was gazetted and copy sent to Nundydroog Commissioner. | Do do | |
| 9 | As solicited by the Military Assistant, the promotion of certain Officers of the Barr was sanctioned.—Communicated to Deputy Accountant General. | Do do | |
| 10 | In reply, the Officiating Judicial Commissioner was informed that it would seem preferable that one of the General Assistant Commissioners employed in the Mysore District should be invested temporarily with the powers of a Judicial Assistant Commissioner to assist Mr. Lacey, in disposing of the arrears of his Court. | 3rd do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 11 | A monthly tabular statement of vacancies and a register of effective and non-effective Officers employed in this Province and Coorg, with proportionate return for 1st November 1875, was submitted to the Government of India, in the Foreign Department. | 4th Nov. 1875. | |
| 12 | A list of casualties amongst the transmarine convicts at Port Blair, during September 1875, was forwarded in original to the Officiating Judicial Commissioner for disposal. | Do do | |
| 13 | A report was submitted to the Government of India, in the Foreign Department, that no marriage certificates had been received during the quarter ending 30th September 1875, for submission to Government. | Do do | |
| 14 | In reply, the Nagar Commissioner was informed that the transfer of the building specified at Ságar, to the District Funds of Shimoga, with a view to its conversion into a rest-house for travellers, was sanctioned. | Do do | |
| 15 | Notification appointing Venkatramaiya to act as 5th Grade Amildar and 3rd Class Magistrate of the Kunigal Taluk was gazetted and copy sent to Commissioner, Nundydroog Division. | Do do | |
| 16 | Notification of appointments and transfers of Amildars, *vice* Tammaiya, was gazetted and copy sent to Nundydroog Commissioner. | Do do | |
| 17 | Copy of a communication from the Surgeon General, Indian Medical Department, Fort Saint George, enclosing copy of the Proceedings of the Madras Government and requesting that the Deputy Surgeon General should at once proceed to Combum, was forwarded in original to the Deputy Surgeon General of Hospitals, for information and guidance. | 5th do | |
| 18 | Copy of the Proceedings of the Madras Government, stating that no objection existed to the refund by one Dhanaswami Chetti of a gratuity granted to him by that Government to enable him to count that service towards pension, were forwarded to the Officiating Judicial Commissioner and the Deputy Accountant General. | Do do | *Vide* Progs. for Sept. 1875, Part II, "Genl." No. |
| 19 | Notification granting Mr. Tirumalachari, Judicial Assistant Commissioner, Shimoga District, one month's privilege leave, was gazetted and copy sent to Judicial Commissioner. | 6th do | |
| 20 | In reply, the Inspector General of Police was authorized to occupy the Soldiers' shed at Tirene in the Chitaldroog District, and the valuation report by the Local Fund Engineer being sent to the Chief Engineer for opinion. | Do do | |
| 21 | In reply, the Director of Public Instruction was informed, that the resignation of one Raju Modaliar, a student in the Upper Department of the School of Engineering and Natural Science, was accepted. | 8th do | |
| 22 | Thirteen Kanarese coffee pattas as noted were returned to the Deputy Commissioner, Kadur District, duly registered and signed. | Do do | |
| 23 | In reply, the Inspector General of Police was informed that the new helmets and other articles of clothing required for the members of the Cantonment and Town Police could be supplied, but that the quota chargeable to the several Municipalities should be specified. | Do do | |
| 24 | In reply, the Ashtagram Commissioner was informed that assessed lands may be alienated for building purposes, on condition of the applicants continuing to pay the assessment, in very special cases only under existing rules. | Do do | |
| 25 | In reply, a proposition statement relative to the new Taluk of Mudgeri was returned to Nagar Commissioner, for correction as pointed out. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 26 | In reply, the Ashtagram Commissioner was informed that, pending the Survey and Settlement of a village in the Malnad taluks, no restriction need be placed under the existing rules on ryots building their houses on lands which have hitherto been un-assessed. | 8th Nov. 1875. | |
| 27 | As requested, a copy of the rules issued by Mr. Bowring in 1863, regarding the enforcement of village labor for the up-keep of Irrigation works in this Province, was forwarded to the Under-Secretary to the Government of India in the Foreign Department. | Do do | |
| 28 | Copy of the abstract of the Proceedings of the Council of the Governor General of India, assembled for the purpose of making Laws and Regulations, was forwarded to the Officiating Judicial Commissioner. | 9th do | |
| 29 | Copy of Government of India, Financial Resolution, intimating in reply to a reference from the Bombay Government, that the Honorable the President is not, as at present advised, prepared to allow the denotation of blank sheets of paper, was forwarded to the Superintendent of Stamps. | Do do | |
| 30 | In reply, a report was submitted to the Government of India in the Foreign Department, on the subject of Her Majesty's Secretary of State's Despatch on the subject of agricultural statistics of India. | 10th do | |
| 31 | Copies of Mr. Craw's paper reporting the result of six years' actual experience in the cultivation of several Himalayan trees were circulated to Conservator of Forests, Superintendent, Lal-Bagh, and Superintendent, Government Farm. | Do do | |
| 32 | In reply, the Inspector General of Police was informed that until cholera had become epidemic in Bangalore, when exceptional measures should cease, the Police should be instructed to remove all persons seized with the disease to the Cholera Camp Hospital, with the exceptions noted. | 11th do | |
| 33 | The sanction of the Madras Government in the Military Department was solicited to the Apothecary attached to the Hunsúr Farm being appointed to supervise the dispensary to be established by this Administration at that place. | Do do | |
| 34 | Notification appointing Mr. Madaiya, Attaché, to the temporary charge of the Bangalore District Treasury, on the departure of Mr. Ananda Rao on leave, was gazetted. | 12th do | |
| 35 | Six copies of the "Indian Forester" were forwarded to the Conservator of Forests for distribution. | Do do | |
| 36 | A statement of sanctions accorded to fixed charges, subject to the confirmation of the Government of India, was submitted to the Government of India in the Foreign Department. | 15th do | |
| 37 | Copies of a paper on the foot and mouth disease among cattle in Burma by Colonel Davies in English and Kanarese were forwarded to the Deputy Commissioners of Districts, with a request that the recipe may be tried on occasions offering and the result reported to this Office. | 16th do | |
| 38 | Copies of Officiating Chief Commissioner's Diary of Proceedings for October 1875 were submitted to the Government of India in the Foreign, Financial, Home and Revenue, Agriculture and Commerce Departments.—Copies also circulated to Heads of Departments. | 17th do | |
| 39 | Notification granting Bhagavanta Rao, Amildar of the Kunigal Taluk, four months' leave on private affairs, was gazetted and copy sent to Nundydroog Commissioner. | Do do | |
| 40 | Lists of Officers in the Survey and Forest Departments, as they stood on 1st October 1875, were forwarded to the Survey and Settlement Commissioner and the Conservator of Forests. | 19th do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 41 | Notification appointing the Peshkar of Huliyurdurga to be Sub-Registrar of that place with jurisdiction as noted, was gazetted and copy sent to Inspector General of Registration. | 19th Nov. 1875. | |
| 42 | Notification granting Mr. Ananda Rao privilege leave in extension of that previously granted him was gazetted and copy sent to Nundydroog Commissioner. | 20th do | *Vide* this Statement No. |
| 43 | Notification granting Mr. Krishnaswami Modaliar, Judicial Assistant, Túmkúr District, as a special case a week's privilege leave, was gazetted. | Do do | |
| 44 | In reply, copy of a Notification issued in connection with a Levee proposed to be held at Bangalore, on the arrival of His Royal Highness the Prince of Wales, was submitted to the Government of India in the Foreign Department.—Copy also sent to Major P. D. Henderson, Political Officer with the Camp of His Royal Highness. | 22nd do | |
| 45 | Copy of Government of India Resolution regarding the working of the rules for the prevention of venereal disease among troops No. 23—436, A, dated 28th October 1875, was forwarded to Nundydroog Commissioner. | Do do | |
| 46 | A proposition statement providing for a scale of progressive salaries for the officials of the establishment of the Deputy Inspector General of Police, Mysore, was submitted for the orders of the Government of India in the Foreign Department. | Do do | |
| 47 | Copy of Government of India No. 711, prescribing certain rules for the entertainment of Vaccinators in localities containing Military and Non-Military population, was forwarded to the Deputy Surgeon General of Hospitals, for report on the points noted. | Do do | |
| 48 | Notification placing Mr. Srinivas Rao temporarily in charge of the Nanjangúd Sub-Division was gazetted and copy sent to Ashtagram Commissioner. | 23rd do | |
| 49 | Notification granting Mr. Daly 3 months' privilege leave from 1st December 1875, was gazetted and copy sent to Conservator of Forests. | Do do | |
| 50 | In reply, Captain G. Straham, R. E. was informed that as cholera had almost disappeared in the Chitaldroog District, there would appear to be no obstacle to survey operations being commenced. | Do do | |
| 51 | Notification granting Amildar Rangaswami Pillo leave on medical certificate under Section 3, Supplement F. of the Civil Leave Code, was gazetted, and copy sent to Nundydroog Commissioner. | 24th do | |
| 52 | In forwarding to him correspondence on the subject, Mr. Gould, Barrister at Law, was requested to state his opinion on a question raised as to whether interest was only payable by the Trustees of Bishop Cotton's School on such portion of the loan as remained unpaid from month to month or on the balance remaining on each 1st May. | Do do | |
| 53 | In reply, the Officiating Chief Commissioner's instructions in the case of one Chinnaiya, of Yerahalli in the Honnali Taluk, were communicated to the Nagar Commissioner. | Do do | |
| 54 | In reply, the Commissioner of the Nundydroog Division was directed to request the President of the Cantonment Municipal Commission to issue a grant for the house lately purchased for the Superintendent of the Model Farm. | Do do | |
| 55 | In forwarding copy of the Proceedings of the Government of the Punjab, on the subject of objects of antiquarian interest, the Director of Public Instruction was requested to state whether the preparation of a list by District Officers of such as may exist in this Province and others would be likely to be attended with any advantage. | Do do | |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 56 | In reply, the Chief Commissioner's instructions in the case of Amildar Venkob Rao were communicated to Commissioner, Nundydroog Division. | 24th Nov. 1875. | |
| 57 | Notification vesting Mr. P. N. Krishna Múrti, Assistant Commissioner, with the powers of a Judicial Assistant temporarily under Section 6 of the Rules of Civil Procedure, to be exercised co-ordinately with the Judicial Assistant Commissioner at Mysore, was gazetted, and copy sent to Judicial Commissioner. | 25th do | |
| 58 | Notification granting Mr. Lawrance, Munsiff, Davangere Sub-Division, privilege leave for 15 days from 8th December 1875, was gazetted and copy sent to Officiating Judicial Commissioner. | Do do | |
| 59 | In reply, the Nagar Commissioner was informed that on a careful perusal of the proceedings received from him, the Officiating Chief Commissioner decided that Subbaiya, Ex-Patel of Natur in the Sira Taluk, be required to pay sayer duty on the produce of his garden, for a period of 3 years. | Do do | |
| 60 | In reply, the Deputy Commissioner of the Kadur District was informed that the grant of a plot of land to one Mr. Chapman, for cultivation, was sanctioned on the condition that he would abide by any rules which may hereafter be brought into force with reference to such grants. | Do do | |
| 61 | Copy of a communication from the Director General of Stores, intimating that the leather belts, hand cuffs and battoons indented for for this Administration could not be supplied by December, was forwarded to the Inspector General of Police. | Do do | |
| 62 | As requested by the Surgeon to the Commission, a case of 5 Hydrometers was forwarded for the use of the Chemical Examiner at Mysore. | 26th do | |
| 63 | In reply, the Deputy Superintendent, Mysore Revenue Survey, was directed to make over to the Deputy Commissioner of the Bangalore District, the old Court-house in the Bangalore Fort, used by his Department as a Record Office.—Communicated to Nundydroog Commissioner, and Deputy Commissioner, Bangalore. | Do do | |
| 64 | Sixteen printed copies of the catalogue of books registered in this Province, during the quarter ending 30th September 1875, together with a copy of each of the books therein mentioned, were submitted to the Government of India in the Foreign Department. | 27th do | |
| 65 | Notifications embodying the names of Munsiffs in the Province, and Amildars in the Ashtagram Division, who had passed the examinations prescribed for their respective classes, were gazetted. | Do do | |
| 66 | In reply, the Survey and Settlement Commissioner was informed that the Superintendent, Revenue Survey, had been directed to apply for an adjournment of a case brought against that Officer, pending the issue of instructions by the Officiating Chief Commissioner in communication with the Nagar Commissioner.—Communicated to Captain Grant.—Copy of letter on the subject from Survey and Settlement Commissioner, with instructions, forwarded to Nagar Commissioner. | Do do | |
| 67 | In reply, the Chief Commissioner's instructions were communicated to Nundydroog Commissioner, in respect to an application for waste land made by Mr. Lavelle in the Kolar District. | Do do | *Vide* Part I, Progs. for Sept. 1874. Index Nos. |
| 68 | In reply, the Ashtagram Commissioner was informed that the conditions upon which a new grant for the whole of Mr. Middletone's estate would be granted were stated in Proceedings of August last, and if they will be fulfilled, it is only necessary for that gentleman to enter into a | Do do | *Vide* Progs. for August 1875, Part I, Rev. A. Com. Index Nos. |

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| | formal agreement, consenting to forfeit the grant if, after the lapse of 3 years, it should appear that the entire area has not been planted in the required proportion of 500 trees per acre and maintained in good order. | | |
| 69 | In reply, the Commissioner, Nundydroog Division, was informed of certain arrangements made to fill up vacancies in the Amildar Grade in his Division. | 27th Nov. 1875. | |
| 70 | Copy of correspondence on the subject of Mr. Pope receiving an address and presents from the masters and students of the school at Mysore, in contravention of the orders of the Government of India, was forwarded to the Agent to the Governor General, Baroda, where Mr. Pope is now serving in the Educational Department of that Government, for such notice as he may deem it proper to take. | 29th do | |
| 71 | In reply, the Officiating Chief Commissioner's instructions as to the disposal of certain unserviceable arms, &c., belonging to the Túmkúr District, were communicated to Nundydroog Commissioner. | Do do | |
| 72 | Notification granting Satchidananda Pille, Munsiff, Chitaldroog Sub-Division, 10 days' privilege leave from such date as he may avail himself of it, was gazetted and copy sent to Officiating Judicial Commissioner. | 30th do | |
| 73 | In reply, a report was submitted to the Government of India, in the Department of Revenue, Agriculture and Commerce, as to the disposal of 50 copies of Doctor Moore's "Family Medicine" received for sale. | Do do | |
| 74 | An abstract statement giving particulars of the number of Hydrometers reported to be serviceable was forwarded to Commissioners of Divisions, with a request that enquiries be made to ascertain whether that number is in stock, and in such case why so large an additional number has been applied for. | Do do | |
| 75 | As requested, three printed copies of the Report of the Chief Medical Officer in this Province, for 1874, with Officiating Chief Commissioner's Review thereon, were submitted to the Government of India in the Foreign Department. | Do do | |

MYSORE CHIEF COMMISSIONER'S OFFICE,
*Bangalore, December* 1875.

T. CLARKE,
*Offg. Secretary.*

# PART II.

## MILITARY.

### B.

TABULAR STATEMENT OF MATTERS OF ROUTINE FOR THE MONTH OF NOVEMBER 1875.

MYSORE.

| No. | Subject and Order. | Date of Order. | Date of previous Orders. |
|---|---|---|---|
| 1 | Copies of a communication from Captain Calwell reporting on a site selected for a Rifle Range at Mysore were forwarded to the Commissioner, Ashtagram Division, and the Commandant, Bangalore Rifle Volunteers. The Officiating Chief Commissioner's acknowledgments were communicated to Captain Calwell. | 2nd Nov. 1875. | |
| 2 | In reply, the Officiating Judicial Commissioner was informed that the Officiating Chief Commissioner approved of the withdrawal of the Barr-guard attached to the Munsiff's Court at Chintamani, the Police Station at that place having been removed to the old Taluk Cutcherry, where the Munsiff's Court is now located.—Communicated to Nundydroog Commissioner. | 26th do | |

MYSORE CHIEF COMMISSIONER'S OFFICE,
*Bangalore, December* 1875.

T. CLARKE,
*Offg. Secretary.*